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S. HRG. 100-204

OVERSIGHT OF FISHERY PROGRAMS

HEARING

BEFORE THE

NATIONAL OCEAN POLICY STUDY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

S. 62

TO IMPROVE EFFORTS TO MONITOR, ASSESS, AND REDUCE THE ADVERSE IMPACTS OF DRIFTNETS

APRIL 30, 1987

Printed for the use of the
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PELAGIC DRIFTNET FISHERY LEGISLATION

THURSDAY, APRIL 30, 1987

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
NATIONAL OCEAN POLICY STUDY,
Washington, DC.

The Committee met, pursuant to notice, at 10:15 p.m. in room SR-253, Russell Senate Office Building, Hon. John F. Kerry (vice chairman of the study) presiding.

Staff members assigned to this hearing: Jim Drewry, staff counsel; and Bob Eisenbud, minority professional staff member.

OPENING STATEMENT BY SENATOR KERRY

Senator KERRY. This hearing will come to order. Good morning. This hearing is the beginning, really, of a process whereby the Congress and this Committee are intending to reassert an interest in some very important issues. Fishing obviously has been one of the longest traditions we have practiced in this country, over 400 years or more. We have relied on our access to the oceans and to certain fishing banks; yet now all of us are aware that that process is challenged by a number of different factors as never before.

I happen to come from a region and from a state which has a great fishing tradition and where we have the number one commercial fishing port on the eastern seaboard and a great interest in what happens over these next years.

As we all recall, during the early 1960s and 1970s huge foreign vessels, so-called factory ships, came into our areas and literally caught, cleaned and processed the sea. They inundated the Georges Bank areas, and they competed with our small independent fishermen in the process. That led, as a result, to a drastic reduction in the fish stocks.

Ten years ago, however, the 200 mile zones of Canada and the United States were established which resulted at least in a restriction on the access of vessels but to this date has not even yet permitted us to say that those fishing stocks are back where we would like them to be.

Moreover, there are a host of new problems that have grown: insurance problems; problems of increased competition even among our own fishermen; a continuation of depleted catches; the proposed Federal cuts in fishing research and marketing grants; competition and conflict with the Canadian industry; the administration's priority to lease oil and gas within the Georges Bank; the obvious need for conservation; the high cost of fishing vessels them-

selves. All of these have created a whole new dynamic within the fishing industry in this country.

So they have left the North Atlantic fishermen at least with a very complicated set of problems which have to be addressed in order to preserve the integrity of one of our oldest and vital occupations.

Obviously the North Atlantic is not the only region. There are problems with nets and trawling and turtles in the south and southwest. There are shrimp problems. There are problems in the Pacific, driftnet problems and other kinds of problems. So it is an industry that is under stress.

Today's hearing is designed to do several things, but I think first and foremost it is designed to try to force some of these issues into the Congressional arena. Congress, I think, has to take a look at all of these conflicting and competing factors and understand how and why they are sabotaging or hindering our fishing industry.

It is clear that we here in Congress have to try to respond to these difficult questions which have clouded the industry if fishing is going to continue and continue on a competitive basis. That is not to say that we necessarily have all the solutions or will have the solutions or that they ought to be Congressionally mandated, but I think the airing of these issues is critical to sorting out where there is conflict, why there is conflict, and how that conflict can be resolved.

I have statements for the record from Senators Hollings, Danforth, and Packwood, and I would like to submit for the record several copies of letters to Chairman Hollings from William Brannon, the Commissioner of Marine Resources of the State of Maine and also James Salisbury, General Manager of the Portland Fish Exchange and a member of the New England Fishery Management Council.

Let me also submit a statement submitted by Senator Mitchell.

[The statements and bill follow:]

Opening Statement by the Chairman

On March 1, 1977, the United States assumed responsibility for the fish stocks within our 200-mile exclusive economic zone. Then, as now, we recognized that those stocks are a valuable national resource that we must carefully manage if we are to continue our commercial and recreational harvests.

Ten years ago, by reducing the level of foreign fishing, we expected to increase the effectiveness of our conservation efforts and to stimulate the development of the American fishing industry. The Americanization of fisheries in our exclusive economic zone is well underway, but I am concerned that our ability to conserve our fishery resources has not progressed at the same pace. Although Americans are replacing foreign fishermen, the problems of overharvesting and lack of scientific information for making management decisions seem to persist. And there still are not enough fish to go around.

While the Magnuson Act provides an effective framework for fisheries management, the declining catches in many fisheries make it obvious that the system has room for improvement. Our current shortage of king and spanish mackerel off South Carolina's coast illustrates many of the problems facing fishery managers. Recreational and commercial fishermen compete for a resource which ranges across the jurisidiction of several states and offshore into federally managed waters. Working with limited scientific data, managers must balance the needs of the different user groups as they coordinate state and federal regulatory actions. Recognizing the complexity of these management problems, I look forward to today's testimony to provide suggestions for improving our nation's marine fishery management.

Opening Statement by Senator Danforth

Mr. Chairman, I am very glad that the National Ocean Policy Study and full Committee are continuing their efforts to deal with the serious problems posed by the driftnet fishing fleets of Japan, Republic of Korea, and Taiwan in the North Pacific Ocean.

I have joined with Senators Stevens and Murkowski as an original cosponsor of S. 62, the Driftnet Impact Monitoring, Assessment, and Control Act, because I am convinced that legislation is urgently needed. Hundreds of thousands of seabirds, porpoises, marine turtles, and other living marine resources are killed and discarded by the more than 1,500 driftnet fishing vessels that set more than one million miles of netting each year in the North Pacific Ocean. Obviously, something must be done to deal with this problem.

As you know, S. 62 is very similar to S. 2611, which I also cosponsored, and which was reported, without objection and without amendment, by this Committee in July 1986. The new provisions of S. 62 have been designed to respond to concerns about S. 2611, which were raised at the end of the 99th Congress and prevented its passage. I trust that those concerns will be resolved and look forward to favorable action by the Committee.

Opening Statement by Senator Packwood

Mr. Chairman, I am pleased that the Committee is holding this hearing on S. 62, the Driftnet Impact Monitoring, Assessment, and Control Act. I believe this issue deserves the attention of this Committee and of the Senate.

High seas driftnet fishing by Japan, the Republic of Korea and Taiwan is taking its toll on marine resources in the Pacific Northwest. For years, fishermen and processors in this region have suffered from the incidential taking of salmon by driftnet fishing practices. Driftnet fishing jeopardizes the gains in pacific salmon stocks made over the past several years. We can not allow these gains to be lost as a result of driftnet fishing.

Environmental concerns also weigh heavily in our need to take action on the issue of high seas driftnets. While more data on marine life mortality due to driftnet entanglement is necessary, the information we now have suggests that hundreds of thousands of seabirds and thousands of marine mammals are incidentally killed and discarded each year. This unnecessary and wasteful practice should not be allowed to continue.

Mr. Chairman, S. 62 is designed to obtain reliable information about driftnet fisheries outside our Exclusive Economic Zone (EEZ) and to mitigate their impact within our EEZ. I support the bill, and I look forward to this Committee's consideration of this important issue.

II

100TH CONGRESS
1ST SESSION

S. 62

To improve efforts to monitor, assess, and reduce the adverse impacts of driftnets.

IN THE SENATE OF THE UNITED STATES

JANUARY 6, 1987

Mr. STEVENS (for himself, Mr. MURKOWSKI, and Mr. DANFORTH) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To improve efforts to monitor, assess, and reduce the adverse impacts of driftnets.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Driftnet Impact Monitoring, Assessment, and Control Act of 1987".

FINDINGS

SEC. 2. The Congress finds that—

(1) the use of long, plastic driftnets is a wasteful, indiscriminate, and destructive fishing technique that results in the entanglement and death of enormous numbers of target and nontarget fish, marine mammals,

seabirds, and other living marine resources in the Pacific Ocean (including the Bering Sea) off the coasts of the United States;

(2) there is a pressing need for detailed and reliable information on the number of fish, marine mammals, seabirds, and other living marine creatures that become entangled and die in actively fished driftnets and in netting that is lost, abandoned, or discarded; and

(3) increased efforts are necessary to monitor, assess, and reduce the adverse impacts of driftnets.

DEFINITIONS

SEC. 3. As used in this Act, unless the context otherwise requires, the term—

(1) "driftnet" or "drift gillnet" means a gillnet composed of a panel of plastic webbing one and one-half miles or more in length that is placed in the water and allowed to drift with winds and currents for the purpose of entangling fish in the webbing in the course of commercial fishing operations;

(2) "living marine resources of the United States" includes—

(A) anadromous species, as defined in section 3(1) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1802(1)); and

(B) species of marine mammals, seabirds, and marine turtles which breed within, or are otherwise dependent upon, areas subject to the jurisdiction of the United States, including its territorial waters and its exclusive economic zone; and

(3) "Secretary" means the Secretary of Commerce, or the Secretary's designee.

MONITORING

SEC. 4. (a) Section 201(i) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1821(i)) is amended—

(1) in paragraph (1)(A), by striking "(2)," and inserting in lieu thereof "(2) and (3),";

(2) in paragraph (2)(A), by inserting immediately after "vessels" the following: ", other than vessels harvesting anadromous species under the International Convention for the High Seas Fisheries of the North Pacific Ocean, and the North Pacific Fisheries Act of 1954 (16 U.S.C. 1021 et seq.),";

(3) by inserting immediately after paragraph (2) the following:

"(3) The requirement in paragraph (1) that a United States observer be placed aboard each foreign fishing vessel may be waived by the Secretary with respect to foreign fishing vessels harvesting anadromous species under the International Convention for the High Seas Fisheries of the North

Pacific Ocean, and the North Pacific Fisheries Act of 1954 (16 U.S.C. 1021 et seq.) if the Secretary stations—

"(A) at least two research observers aboard each fish processing vessel serving such harvesting vessels; and

"(B) a sufficient number of research observers aboard such harvesting vessels to ensure that an adequate sample is obtained to estimate, with 95 percent confidence, the number of fish, marine mammals, seabirds and other living marine resources harvested or killed and discarded or lost by such vessels.

The costs of providing such research observers shall be included in the surcharge imposed under section 201(i)(4).";

and

(4) by redesignating paragraphs (3) through (6) as paragraphs (4) through (7), respectively.

(b) Section 204(b)(6) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1824(b)(6)) is amended by adding at the end thereof the following:

"(C) The Secretary shall not approve any permit for a vessel aboard which the facilities for quartering of any United States observer required by section 201(i) or for carrying out the functions of such observer are determined by the Secretary

to be so inadequate that the health, safety, or welfare of such observer cannot be assured.".

(c) The Secretary shall—

(1) immediately initiate, through the Secretary of State, negotiations with each foreign government that conducts, or authorizes its nationals to conduct, driftnet fisheries that result in the taking of living marine resources of the United States in waters off the coasts of the United States, for the purpose of arranging for reliable cooperative monitoring and assessment, with 95 percent confidence, of the numbers of fish, marine mammals, seabirds, and other living marine creatures killed and retrieved, discarded, or lost by the government's driftnet fishing vessels in waters beyond the jurisdiction of the United States;

(2) not issue any permit under section 204(b) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1824(b)) for fishing, other than to receive at sea or transport United States harvested fish from vessels of the United States, to any vessel of any foreign government that fails, within one year after the date of enactment of this Act, to enter into an arrangement under paragraph (1) that is determined to be adequate by the Secretary after consultation with the Secretary of State, except that the Secretary may deny

any such permit to receive at sea or transport United States harvested fish for any vessel of any foreign government that fails, within two years after the date of enactment of this Act, to enter into such an arrangement; and

(3) provide to the Congress by not later than one year after the date of enactment of this Act a full report on the results of the Secretary's efforts under this section.

IMPACT REPORT

SEC. 5. The Secretary shall provide to the Congress, within one year after the date of enactment of this Act, and every twelve months thereafter, a report identifying the nature, extent, and impact upon living marine resources of all driftnet fisheries in waters off the coasts of the United States, both within and beyond the exclusive economic zone of the United States (as defined in section 3(6) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1802(6)). The report shall include the best available information on the number and flag state of vessels involved, the areas fished, the length, width, and mesh size of driftnets used, the target species, and the number of fish, marine mammals, seabirds, and other living marine creatures killed by such fishery, as well as any other information the Secretary considers appropriate. The Secretary, through the Secretary of State, shall request such information for inclusion in such

report from the relevant foreign governments and shall include in such report an evaluation of the adequacy and reliability of the data and estimates received from such governments or other sources.

ENFORCEMENT AND FOREIGN FISHING PERMIT FEES

SEC. 6. Section 204(b)(10) of the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1824(b)(10)) is amended by adding at the end thereof the following:

"(G) The Secretary shall include in the determination of the total costs of carrying out the provisions of this Act the costs of an effective enforcement program for the exercise of exclusive management authority and, in particular, to ensure the conservation and management of all anadromous species throughout their migratory range, consistent with section 101 of this Act. The Secretary shall consult at least annually with the Secretary of the department in which the Coast Guard is operating to determine the costs of an optimally effective enforcement program so that it can be reflected in and fully recovered through the schedule of fees established pursuant to subparagraph (A).".

NET BOUNTY SYSTEM

SEC. 7. The Secretary shall promulgate regulations to implement a net bounty system to pay persons who retrieve

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from the marine waters of the United States and deposit with the Secretary, or the Secretary's designee, lost, abandoned, or discarded driftnet or other plastic fishing net material. The Secretary shall make such payments for this purpose as the Secretary determines to be appropriate from the Fishing Vessel and Gear Damage Compensation Fund established under section 10 of the Fishermen's Protective Act of 1967 (22 U.S.C. 1980) to the extent and in such amounts as are provided in advance in appropriation Acts.

NET MARKING, REGISTRY, AND IDENTIFICATION SYSTEM

SEC. 8. (a) The Secretary shall, in consultation with officials of other Federal agencies and such other persons as may be appropriate, evaluate the feasibility of and develop recommendations for: (1) the establishment of a driftnet marking, registry, and identification system to provide a reliable mechanism for the determination of the origin by vessel, if possible, of lost, discarded, or abandoned driftnets and fragments of driftnets; (2) the establishment of a cooperative driftnet fishing vessel tracking system making use of transponders aboard such vessels and satellites or other equipment and techniques to facilitiate cooperative efforts to monitor the location of driftnet fishing vessels; and (3) the use of biodegradable or other materials in a portion or all of the driftnet that would accelerate the decomposition of driftnets left to float at sea and thereby reduce the hazards such driftnets pose to living marine resources.

(b) The Secretary shall provide to the Congress, not later than six months after the date of enactment of this Act, a report setting forth—

(1) the evaluations and recommendations developed under subsection (a) of this section;

(2) the most effective and appropriate means of implementing such recommendations;

(3) the need, if any, for further research and development efforts and the estimated cost and time required for completion of such efforts; and

(4) the need, if any, for legislation to provide authority to carry out such recommendations.

SEABIRD PROTECTION ZONE

SEC. 9. (a) There is established a seabird protection zone surrounding the Aleutian Islands off Alaska within which no driftnet fishing is permitted. The inner boundary of the zone is a line coterminous with the low water line on the shore of each of the Aleutian Islands and the outer boundary of the zone is a line drawn in such a manner that each point on the line is no less than sixty miles from the inner boundary line, except to the extent that such outer boundary would extend beyond waters or territory subject to the jurisdiction of the United States.

(b) The Secretary, in cooperation with the Secretary of the department in which the Coast Guard is operating, shall enforce the prohibition against driftnet fishing in the seabird

protection zone established under subsection (a) of this section. Any such driftnet fishing within the zone shall constitute, be treated as, and be deemed to be a prohibited act under section 307 (16 U.S.C. 1857) and subject to sections 307 through 311 of the Magnuson Fishery conservation and Management Act (16 U.S.C. 1857–1861) relating to enforcement and penalties for such prohibited acts.

(c) The Secretary, after consultation with the Secretaries of State and the Interior, may modify by regulation the inner and outer boundaries of the seabird protection zone established under subsection (a) of this section if the Secretary determines, after notice and an opportunity for comment, that such modification will provide an equal or greater degree of protection for seabirds. The Secretary shall not modify the outer boundary of the seabird protection zone to extend beyond waters or territories subject to the jurisdiction of the United States.

CONSTRUCTION WITH OTHER LAWS

SEC. 10. Nothing in this Act shall serve or be construed to expand or diminish the sovereign rights of the United States, as stated by Proclamation Numbered 5030, dated March 10, 1983, and reflected in existing law on the date of enactment of this Act.

Senator KERRY. I would like to welcome our witnesses. We are delighted to have you here at today's hearing on Fishery Program oversight and on the Driftnets legislation.

Today we welcome several panels. The first panel is seated. The second panel will be the New England Groundfish Panel and then the Driftnet Panel.

We will begin promptly with the first panel, which is made up of Dr. William Evans, the Assistant Administrator for Fisheries at the National Oceanic and Atmospheric Administration, and Mr. Edward Wolfe, Deputy Assistant Secretary for Oceans and Fisheries Affairs at the Department of State.

It is my understanding, Dr. Evans, and I will just say this for the record now, that we are aware of an ex parte proceeding in which you are involved regarding some of the driftnet issue. So, therefore, if there are areas of questions which you feel fall specifically on that, I know you will let us know at the appropriate moment so that we can have further questioning of Mr. Wolfe with respect to that issue. Once we have exhausted questions to you, we will certainly excuse you so that we can proceed to go into that area without creating any kind of conflict.

So gentlemen, we welcome you. We look forward to your testimony. I notice that both of your testimonies are not short. If you can summarize those testimonies, we will certainly submit the full testimony for the record, but we would obviously welcome an opportunity to explore as much as possible in the questioning period.

I see none of my colleagues here at this time, so why do we not proceed at this time immediately with your statements.

Dr. Evans, if you would begin. Thank you.

STATEMENTS OF DR. WILLIAM E. EVANS, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE; AND EDWARD E. WOLFE, DEPUTY ASSISTANT SECRETARY FOR OCEANS AND FISHERIES AFFAIRS, DEPARTMENT OF STATE

Dr. EVANS. Thank you, Mr. Chairman. My name is William E. Evans, and I am the Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration and head of the National Marine Fisheries Service.

I appreciate the opportunity to appear before you today to give you an overview of the marine living resources programs of NOAA. With your approval, I will submit my complete testimony as you suggested for the record and try to summarize it for you orally.

The fisheries resources within the U.S. Exclusive Economic Zone constitute approximately 15 percent of the world's supply. No other country comes close to controlling this amount of fisheries resources. The annual production from these resources contributes billions of dollars each year to the Nation's economy.

Achieving the optimum utilization and benefit from these resources requires protecting and conserving the resource and its environment. It also involves the creation of a business climate conducive to the production of economic benefits while providing guardianship of basic resource values.

Fish are the only modern food resource which are still considered a common property available for use by all who wish to pursue them and which are substantially hunted and harvested from the wild state. The abundance and distribution of U.S. fisheries resources can vary each year, sometimes dramatically, as a result of either natural environment fluctuations or human actions.

These characteristics contribute to uncertainty in the size and the composition of the catch. Forecasting these variations in resource abundance and distribution is difficult because of the complex relationships among species and their environments. As in any living system, no component can function in isolation.

Under the Magnuson Fishery Conservation and Management Act and other statutes and international treaties, NOAA is responsible for providing the scientific and technical information needed to conserve, manage and develop marine living resources.

This information is needed by Regional Fisheries Management Councils, Interstate Marine Fisheries Commissions, State agencies and NOAA as the basis for establishing and implementing a variety of conservation and management measures. It is used by Federal agencies to assess the effects of proposed development projects upon marine resources populations and habitats. It is also used by public and private decisionmakers to guide the development and maintenance of the Nation's fisheries resources.

This information and related analyses are the basis for management level decisions that support the conservation, growth and stability of the U.S. fishing industry.

The foundation of maintaining marine living resource productivity is the quality of the marine environment in which the animals live. In NOAA we have initiated an ecosystem-focused approach to direct and integrate scientific research and data collection efforts among the NOAA line organizations, other Federal and State agencies, and academia.

A principal role for NOAA is to provide information necessary to understand the biological, oceanic and atmospheric components which define the various ecosystems. Each ecosystem has its own set of characteristics—physical and chemical oceanographic conditions, species of fish and protected species, and commercial and recreational fishing pressures—that must be addressed as well as other human activities which may alter the nature of the system.

Through understanding and monitoring changes in the dynamic relationships among all of these components, we will improve our ability to predict natural and man-induced changes in these ecosystems and be able to sort out one from the other. This will help us to appreciate and predict better the near and long-term consequences of the populations of living resources. This approach will allow NOAA to provide the scientific data needed for the development, validation and operation of new analytical ecosystems models.

The development of ecosystems models will permit us to combine the wide range of information needed to predict the size of the resources, to determine their appropriate yields, to determine options for resource use, to evaluate their economic and social significance, and to analyze the impact of alternative management and development actions.

This will permit NOAA to become proactive through the development of a predictive capability as opposed to merely reacting to each situation as we have in the past after it has reached crisis proportions. We envision that public and private decisionmakers will be able to use this information to guide investment decisions that will support the growth and stability of the U.S. fishing industries.

NOAA conducts three basic types of program functions to meet its Federal marine living resources mandates: Information Collection and Analysis, Conservation and Management Operations, and State and Industry Assistance. I propose only to briefly describe these functional program areas now; however, I have included a more complete description in my written testimony.

Our Information Collection and Analysis programs are designed to collect biological and environmental data about the living resources of each large marine ecosystem, to collect economic and statistical information on the commercial and recreational harvest of these resources, and to analyze and disseminate these data to provide the information necessary for making informed fisheries management and development decisions.

These assessments are being continuously updated because of the dynamic and variable nature of the marine environment and the living resources involved that I mentioned earlier. Activities emphasize fish and protected species stock-assessment services, maintenance of high priority catch-effort and industry economic data, and high priority habitat research. These data provide for the understanding of biological processes needed for developing biologically sound management strategies.

The second major function is Conservation and Management Operations. Conservation and management operation programs develop and implement domestic and international fishery and protected species management measures.

This includes: efforts to secure the best terms possible for access of the U.S. industry to international and foreign fisheries resources;

Providing Federal management regimes for the U.S. Exclusive Economic Zone to facilitate optimum utilization of marine living resources and the development of the U.S. fishing industry while preventing overfishing;

Assisting the states in conserving and managing the resources in territorial waters;

Conserving populations of marine mammals and endangered species that are affected by domestic and international human activities;

Conserving the habitats and associated ecosystems needed to sustain the productivity of marine living resources and their populations at optimum levels; and

Enforcement actions necessary to assure compliance with these management regimes.

An example of this activity is the recent NOAA involvement in efforts to improve monitoring, assessment and reduction of the adverse impacts of driftnets. NOAA and the Department of Commerce generally support recent Congressional efforts to address the problems related to the use of driftnets, however, for various rea-

sons stated in my testimony, we object to S. 62. The proposed legislation supports our efforts undertaken with the Department of State to negotiate improved monitoring of driftnet fisheries.

We are preparing technical comments on the various legislative proposals. I have also included specific comments which address our position on S. 62, the Driftnet Monitoring, Assessment and Control Act of 1987 in my testimony which was submitted for the record.

The third major function is State and Industry Assistance. State and Industry Assistance programs provide funding and support services for a variety of fisheries research and development activities. These include grants to the states to supplement fisheries catch data collection, management and development projects for marine and anadromous fisheries within territorial waters, and various fisheries enhancement projects; domestic and export marketing assistance to the fishing industry to increase exports and utilization of non-traditional resources and fisheries products; technical assistance on product quality, safety, and public health impediments to the growth and stability of the U.S. fishing industry; and the administration of programs providing financial services to the U.S. fishing industry.

In summary, I am confident that collectively Federal government, states, commercial and recreational fishing industries, conservation groups, the academic community and other constituencies can successfully meet the significant challenges the Nation faces in the area of fisheries management, protected species management and habitat conservation.

We in NOAA and the National Marine Fisheries Service look forward to working with you, Mr. Chairman, and other Members of the Committee and Congress in achieving our national goals for marine living resoures.

If you have any questions, I will be pleased to answer them following any of the other testimony this morning. Thank you very much, sir.

[The statement follows:]

STATEMENT OF DR. WILLIAM E. EVANS, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NOAA

Mr. Chairman and Members of the Committee:

My name is Dr. William E. Evans. I am the Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration (NOAA) and serve as head of the National Marine Fisheries Service (NMFS). I appreciate the opportunity to appear before you today to give you an overview of the marine living resource programs of NOAA with an emphasis on fisheries management.

GENERAL BACKGROUND

The fishery resources within the U.S. Exclusive Economic Zone (EEZ) constitute approximately 15 percent of the world's supply. No other country comes close to controlling this amount of fishery resources. The annual production from these resources contributes billions of dollars each year to the Nation's economy. The economic benefits from marine fisheries are enjoyed throughout the Nation, in the 23 coastal states where fish and shellfish are landed, and in the many other states that produce goods and services used in commercial and recreational fishing. Let me cite a few examples. Along the Atlantic coast, ex-vessel sales of fish and shellfish totaled more than $800 million in 1985, while sales were more than $600 million in the Gulf of Mexico region and nearly $900 million at ports on the Pacific coast and in Alaska and Hawaii. Billions of dollars more in value were added as these landings were

processed and they worked their way through domestic and international markets. In addition, activity associated with marine recreational fishing generated more than $5 billion in sales revenues. Achieving the optimum utilization of and benefits from these resources requires protecting and conserving their marine ecosystems (habitat). It also involves the creation of a business climate conducive to the production of economic benefits and the guardianshp of basic resource values.

Fish are the only food resource still considered a common property resource available for use by all who wish to pursue them, and which are substantially hunted and harvested from the wild state. The abundance and distribution of U.S. fishery resources can vary each year, sometimes dramatically, as a result of either natural environment fluctuations or human actions. This characteristic contributes to uncertainty in the size and composition of the catch. Forecasting these variations in resource abundance and distribution is difficult because of the complex relationships among species and their environments.

AGENCY OVERVIEW

The National Marine Fisheries Service (NMFS) is the principal organizational element within NOAA with responsibility for marine living resource research and management. The NMFS has an operations, research and facilities (ORF) budget of approximately $162 million for FY 1987 and manages special accounts of another $15 million. The NMFS has approximately 1,860 full-time permanent employees (FTPs) located in Washington, D.C. and in 27 field locations around the Nation.

I am currently in the process of implementing a restructuring of the NMFS to shorten the lines of communication within the Service and to improve management accountability. The field research and management operations will be under the direction of 5 Regional Directors who report directly to my Deputy. The Headquarters staff offices are being organized according to major areas of program responsibility and the Office Directors will report to my office. We will begin implementing the Headquarters restructuring within the next several weeks and plan to have the entire NMFS restructuring completed by the end of FY 1987.

Under the Magnuson Fishery Conservation and Management Act (MFCMA) and other statutes and international treaties, NOAA is responsible for providing the scientific and technical information needed to conserve, manage and develop marine living resources. This information is used by Regional Fishery Management Councils, Interstate Marine Fisheries Commissions, state agencies, and NOAA as a basis for establishing and implementing a variety of conservation and management measures. It is used by Federal agencies to assess the effects of proposed development projects upon marine resource populations and habitats. It is also used by public and private decision-makers to guide the development of the Nation's fishery resources and maintain suitable fisheries ecosystems. This information and related analyses are the basis for management and development decisions that support the growth and stability of the U.S. fishing industry.

Our programs provide the research, management and industry services needed to fulfill Federal responsibilities for the continued health and productivity of the Nation's renewable, but highly vulnerable, marine living resources. This Federal involvement is necessary to assure the continued availability of these resources, and to permit their optimum use and benefit to the Nation. However, in fulfilling these responsibilities we support the Administration's continuing efforts to control spending and to reduce the Federal deficit. I strongly support these efforts and I am working with the NOAA management team to improve the efficiency and cost effectiveness of our fisheries programs. We are working to identify alternative funding mechanisms to reduce or offset Federal program costs. One of these alternatives is our proposal to establish a Marine Fisheries Conservation Assurance Program which would authorize a Federal marine fishing permit and stamp system. The receipts from the sale of these permits and stamps will assist the States and Federal Government in the support of their living marine resource programs. We believe it is appropriate for the resource users to contribute to the support of these programs, since they are direct recipients of the recreational and economic benefits accruing from fisheries resource conservation and management programs.

ECOSYSTEM MANAGEMENT

The foundation of marine living resource productivity is the quality of the marine ecosystems (habitats) in which these animals live. We in NOAA are proposing to use an ecosystem-focused approach to direct and integrate scientific research and data collection efforts among the NOAA line organizations, other Federal and state agencies, and academia.

The principal role for NOAA is to provide information necessary to understand the oceanic and atmospheric components which define the various marine ecosystems. Each ecosystem has its own set of characteristics: physical and chemical oceanographic conditions; species of fish and protected species; commercial and recreational fishing pressures; and, human actions which may alter the nature of these systems. Through understanding and monitoring changes in the dynamic relationships among these components, we will improve our ability to predict natural and human-induced changes in these ecosystems. This will help us to appreciate and predict better the near- and long-term consequences of these changes on the resources. This approach will allow NOAA to provide the scientific data needed for the development, validation and operation of analytical ecosystem models.

The development of ecosystem models will permit us: to combine the wide-range of ecosystem information needed to predict the size of the resources; to determine their appropriate yields; to determine options for resource use; to evaluate their economic and social significance; and to analyze the impacts of alternative management and development actions. This will permit NOAA to become pro-active, through the development of a predictive capability, as opposed to merely reacting to each situation after it has reached crisis proportions. We envision that public and private decisionmakers will be able to use this information to guide investment decisions that will support the growth and stability of the U.S. industries which are dependent upon these renewable living resources.

Within each ecosystem, NOAA conducts three basic types of program functions to meet its marine living resource mandates: Information Collection and Analyses; Conservation and Management Operations; and State and Industry Assistance.

INFORMATION COLLECTION AND ANALYSES

The first of the three functions is Information Collection and Analyses. Information Collection and Analyses programs are designed to: collect biological and environmental data about the living resources (fisheries, protected species and their habitat requirements) of each ecosystem; to collect economic and statistical information on the commercial and recreational harvest of these resources; and to analyze and disseminate these data to provide the information necessary for making informed fisheries management and development decisions. These assessments are being continuously updated because of the dynamic and variable nature of the marine environment and the living resources involved. Activities emphasize fish and protected species stock-assessment services, maintenance of high priority catch-effort and industry economic data, and high priority habitat research.

Resource Information: Resource information collection activities provide data on the population abundance, mortality and growth rates, age structure, distribution and migrations, physiological requirements and diseases of the various resource species. These data provide for the understanding of biological processes needed for developing biologically sound management strategies. Food chain and predator-prey relationships are particularly important in understanding the complex interactions of marine species.

Resource surveys are conducted with NOAA research vessels, charter vessels, and aircraft to collect information on the composition, abundance and distribution of different species of fish as well as marine mammals and sea turtles. Stock assessments are produced using a combination of information from these resource surveys and catch information collected directly from the fishing industry. Industry statistics alone often reflect economic and fishing strategy biases which can mask actual resource abundance trends. The effects of natural and human-induced changes on marine habitats are also studied to determine their impacts upon the abundance, distribution and physiological functions of species of commerical and recreational significance. These environmental changes can impact living resources significantly during their life stages, which can then drastically affect future population levels and harvest potentials.

Fisheries Industry Information: Fisheries industry information activities involve the collection of data on the commercial and recreational harvesting, processing, and marketing of marine living resources. A variety of data are obtained from foreign and domestic fishing vessels, surveys of fishermen, records of landings, and onshore fishery facilities. Fishing effort and location data are collected by logbooks in some fisheries and from interviews of fishermen in others. Samples of commercial and recreational catches are also collected for biological and statistical analyses. These data are collected in cooperation with the states, foreign governments, and the commercial and recreational fishing industry.

Information Analysis and Dissemination: Information analysis and dissemination activities provide analyzed information and recommendation concerning the impacts of management and development options to key users such as the eight Regional Fishery Management Councils, state management agencies, industry and other Federal agencies. Activities include the maintenance of data acquisition, management analysis and information dissemination systems, preparation of stock assessments, and development of fishery systems analytical models.

CONSERVATION AND MANAGEMENT OPERATIONS

The second major function is Conservation and Management Operations. These programs develop and implement domestic and international fishery and protected species management measures. This includes: efforts, in conjunction with the Department of State, to secure the best terms possible for access of the U.S. commercial and recreational fishing industries to international and foreign fishery resources; providing Federal management regimes for the U.S. Exclusive Economic Zone (EEZ) to facilitate optimum utilization of marine living resources and the development of the U.S. fishing industry; assisting the states in conserving and managing the resources in territorial waters; conserving populations of marine mammals and endangered species that are affected by domestic and international human activities; conserving the habitats and associated ecosystems needed to sustain the productivity of marine living resources and their populations at optimum levels; and, enforcement actions necessary to ensure compliance with management regimes.

Fisheries Management Operations: Fisheries management activities are involved with the management of commercial and recreational fisheries to protect the resources from overfishing and depletion, to facilitate the increase of domestic harvests, to expand exports, and to maintain optimum yields so that domestic fishermen and processors operate in a stable and profitable environment. The fisheries resources of interest to U.S. fishermen which extend beyond the exclusive jurisdiction of the United States are managed by international organizations under several treaties and international agreements. The Magnuson Fishery Conservation and Management Act (MFCMA) established exclusive U.S. jurisdiction over virtually all living marine resources in the 2.2 million square miles of ocean area within 200 nautical miles of the coastline of the United States and its territories. The eight Regional Fishery Management Councils established by the MFCMA are responsible for developing fishery management plans (FMPs) for the foreign and domestic fisheries in the EEZ which extends generally from the territorial sea to 200 nautical miles seaward from the coastline. There are currently 32 fishery management plans in operation (25 FMPs and seven preliminary management plans). NOAA provides the Councils with technical and administrative assistance and financial support to assist them in developing, monitoring and amending fishery management plans. NOAA reviews the management plans developed by the Councils to ensure compliance with the MFCMA and implements these plans through promulgation and enforcement of regulations. NOAA also, through the Department of State, issues permits for foreign fishing conducted under such plans.

We are encouraging the consolidation of present FMPs and the adoption of multi-year plans which remain in place until amended. This will reduce the number of regulations and increase efficiency of the regulatory process. We are also considering alternative strategies and institutional arrangements which will permit us to execute our Federal management responsibilities in the most cost-effective manner. NOAA has solicited several independent reviews of our fisheries management processes and institutional structures. We are assessing the recommendations which resulted from these reviews and will be taking appropriate actions.

The coastal states are responsible for managing the fisheries within the territorial sea. We cooperate closely with the states in our fishery management efforts, especially those with interjurisdictional fishery stocks. For example, NOAA provides technical and financial assistance to the coastal states and the management efforts of the Interstate Marine Fisheries Commissions. NOAA also contributes to salmon management in the Pacific Northwest, including activities which implement provisions of the Northwest Power Planning Act and the U.S.-Canada Pacific Salmon Treaty. State cooperation and coordination of interjurisdictional state efforts is critical to effective fisheries management. However, states/regional areas should and must accept greater responsibility for support of programs for fisheries under this jurisdiction. For example, NOAA's current funding of the operation and maintenance of the Columbia River hatcheries could be shifted to a non-Federal source.

Legislation has been proposed to allow the hatcheries to be funded through the BPA power rate structure.

Protected Species Management: Protected species management activities address NOAA responsibilities to minimize the effects of human activities in the marine environment that interact with these species, as required under three principal Acts: Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), and Fur Seal Act. NOAA is responsible for the protection of more than 100 species of whales, porpoise, seals and sea lions, as well as for the management and restoration of 21 marine species listed as threatened or endangered. These activities include processing applications for incidental taking, public display and importing permits. NOAA consults with other Federal agencies and develops biological opinions under Section 7 of the ESA to assist Federal agencies in ensuring that their activities are not likely to jeoparidize the continued existences of listed species or results in the destruction or adverse modification of their critical habitats. NOAA also manages the fur seal herd, located in the Pribilof Islands, and the subsistance harvest by the Aleuts on the Islands.

Protected species management also involves developing and implementing procedures to reduce the mortality of protected species during domestic and foreign commercial fishing operations, Outer Continental Shelf (OCS)—development, and other activities that affect these animals. An example of this type of activity is the recent NOAA involvement in efforts to improve monitoring and assessment, and to reduce the adverse impacts of driftnets. NOAA and the Department of Commerce generally support the concepts embodied in recent Congressional efforts to address the problems related to the use of driftnets; however, for the reasons stated below we object to S. 62.

DRIFTNETS

The concepts embodied in legislation, such as S. 62, "The Driftnet Impact Monitoring, Assessment and Control Act of 1987", are consistent with our efforts, undertaken with the Department of State and the U.S. Coast Guard, to negotiate improved monitoring of driftnet fisheries. Certain provisions of S. 62 are, however, of concern to us since they could impact other aspects of our responsibility under the International North Pacific Fisheries Convention (INPFC).

Establishment of the seabird protection zone would, for example, impact our activities under the INPFC. The INPFC permits Japanese salmon fishermen access to the U.S. Exclusive Economic Zone (EEZ) west of 175 degrees East. Under INPFC, we understand that both Japan and Canada must consent to any changes in the Japanese fishing area. Closing a 60-mile seabird protection zone around the Aleutian Islands to the driftnet fishery, as provided by Section 9 of S. 62, would change the Japanese fishing area allowed under INPFC and could result in extensive negotiations to gain Japanese and Canadian consent to the changes.

The United States and Japan recently concluded an agreement on Pacific salmon interceptions that provides for the phaseout of Japan's mothership fishery in the high seas area of the Bering Sea and a westward movement of the land-based fishery in the North Pacific. The agreement was signed in April, 1986, and involved amending the INPFC with Japanese and Canadian cooperation. Also, the United States, Japan, and Canada have instituted a 3–5 year continent-of-origin salmon research program with the understanding that additional restraints upon Japan's land-based fishery may be negotiated if the research indicates a need to protect North American-origin salmon further. Unilateral action by the United States such as that contemplated by S. 62, for example, shortly after concluding this agreement, could adversely affect U.S.-Japan fisheries relations and efforts to cooperate with Japan in fishing areas beyond the U.S. 200-mile zone.

We agree with the proposal of the Department of State on *Negotiations on Driftnet Fisheries* as detailed in their comments on S. 62.

We are opposed to the unnecessary and costly requirements for an annual report to the Congress and the net bounty system that would require payments from the fishing vessel and gear damage compensation fund. It should be a self-imposed obligation of people who make their living from the sea to collect debris and return it to land for disposal. We believe that monetary incentives are inappropriate and set an undesirable precedent. Education of fishermen on the economic disadvantage of ocean debris is a more appropriate approach.

Because the high seas squid driftnet fisheries have been in existence for only a few years, insufficient data have been available to assess their overall impact upon the marine environment. To address this situation, the NMFS took the initiative during the 1986 fishing season to work cooperatively with other nations to obtain

data on these fisheries. We were successful in arranging for NMFS scientists to be placed aboard a Japanese commercial squid driftnet vessel, and high seas squid research vessels from Taiwan, Canada, and the Republic of Korea. We intend to again place NMFS scientists aboard both Taiwan and Korean high seas driftnet research vessels during the 1987 fishing season. In addition, we have contracted the Japanese side to request that we cooperatively expand data collection efforts involving NMFS scientists aboard commercial Japanses squid driftnet vessels during 1987. We believe that the data collected through cooperative efforts will assist in assessing the overall impact of high seas driftnet fishing in the North Pacific Ocean so that proper conclusions about their impact on the marine environment can be made.

Habitat Conservation: Habitat conservation activities provide Federal agencies with information and recommendations concerning the environmental effects of proposed development projects which affect the habitats of marine fish populations with significant commercial and recreational value. To assess potential environmental impacts, NOAA annually reviews approximately 8,000 permit applications filed with the Corps of Engineers, reviews and provides technical assistance on fisheries matters important to state coastal zone management plans, special area management plans, proposed marine and estuarine sanctuaries, and Outer Continental Shelf oil and gas exploration and production activities. These consultations are intended to minimize or eliminate adverse impacts on marine living resource populations by recommending alternative designs which would be compatible with a healthy marine environment.

Enforcement and Surveillance: Enforcement and surveillance activities support the effective implementation of existing laws and regulations and comprise one of the key ingredients for effective management efforts. NOAA enforcement agents investigate violations of Federal laws and regulations under the MFCMA, the MMPA, the ESA, the Lacey Act, and other Federal statutes and international agreements relating to living marine resources. At-sea enforcement is also conducted by the U.S. Coast Guard, which provides aerial surveillance and conducts boarding from patrol vessels. Shoreside activities are frequently conducted in cooperation with the states and with other Federal agencies. These actions reduce fishing gear conflicts, the illegal harvesting and taking of stocks and ensure that conservation and management measures are met. Surveillance activities also provide information concerning catches and fleet movements used for managing domestic and foreign fisheries and in international negotiations.

STATE AND INDUSTRY ASSISTANCE

The third major function is State and Industry Assistance. These programs provide funding and support services for a variety of fisheries research and development activities. These include: (1) grants to the states to supplement fisheries catch data collection, management, and development projects for marine and anadromous fisheries within territorial waters, and various fisheries enhancement projects; (2) domestic and export marketing assistance to the fishing industry to increase exports and utilization of non-traditional resources and fisheries products; (3) technical assistance on product quality, safety and public health impediments to the growth and stability of the U.S. fishing industry; and, (4) the administration of programs providing financial services to the U.S. fishing industry. Most of these assistance programs are more appropriately the responsibility of the states and industry which are the direct recipients of the economic benefits from these programs. They are not considered appropriate for Federal funding, especially during a period requiring fiscal restraint.

As an alternative to programs that directly assist industry, we will be integrating fisheries development objectives into our fishery management process so that our management objectives complement development objectives of industry. In this way, the fishery management process can become a forum to identify development opportunities as well as to fulfill Federal conservation responsibilities. Industy and government have complementary roles in achieving the continued optimum use of the Nation's marine resources. Industry (commercial and recreational harvesters, processors, wholesale and retail marketers and distributors) must provide the financial investments and development strategies necessary to achieve the full social and economic benefits from these resources. If government conducts its living marine resource information, management, and services activities in a manner which does not impede or discourage industry initiatives, and which allows efficient use of fishery resources, the result will be solid long-term growth in productivity from these resources. This, in turn, will ensure continued economic return for the domestic fishing industry and the Nation.

CONCLUSION

In summary, we will continue to examine our activities and responsibilities for opportunities to provide improved program services at a lower cost. I am confident that, collectively, the Federal Government, states, commercial and recreational fishing industries, conservation groups, the academic community and other constituencies, can successfully meet the significant challenges the Nation faces in the areas of fisheries management, prctected species management, and habitat conservation.

We in NOAA and the National Marine Fisheries Service look forward to working with you, Mr. Chairman, and the other Members of this Committee and Congress in achieving our National goals for marine living resources.

If you have any questions, I will be pleased to answer them at this time or provide for the record any other information requested.

[The following information was subsequently received for the record:]

FOLLOWUP ANSWERS TO QUESTIONS FOR THE RECORD
OF THE APRIL 30, 1987, HEARING
ON NOAA'S MARINE FISHERY PROGRAMS

Answers to Questions Submitted by Chairman Hollings

QUESTION 1:

Once again in FY 1988, the National Marine Fisheries Service faces a serious reduction in funding. Since the Service's work is central to management of our fisheries under the Magnuson Fishery Conservation and Management Act, I am concerned that this reduction may jeopardize the future of our recreational and commercial fisheries. Even at the current level of funding, the management councils were slow to respond to the problem in the spot-tail bass fishery because of a lack of research data. With the value of this fishery placed at over $200 million, can we afford further cuts?

ANSWER: The Council reaction to the red drum (or spot-tail bass) situation was due to the fact that there was no efficient commercial red drum fishery existing until recently. The Councils, as well as NMFS, establish priority levels for spending to deal with resource needs as the situation demands. NMFS will continue to set priorities regarding resource needs and balance them with the funding levels available.

QUESTION 2a:

In 1985, the Secretary approved an Atlantic swordfish management plan developed by the Atlantic Councils. The plan called for variable seasonal closures to prevent overharvesting. It is my understanding that the Councils have submitted closure recommendations for the past 3 years. However, those recommendations have not been implemented by NMFS. Please explain the apparent failure of NMFS to carry out their management responsibilities under the MFCMA.

ANSWER: The only closure recommendation submitted by the Councils to date was for the 1986 season. The Councils considered closures for 1985 but were unable to reach agreement on closure dates and, therefore, never submitted a recommendation. The Secretary subsequently assigned the South Atlantic Council as the single Council responsible for swordfish to avoid any such impasse in the future. The 1986 closure was disapproved because of the potential adverse impacts on U.S. swordfish fishermen operating outside the EEZ and on the rapidly developing domestic tuna longline fishery.

The Agency fully carried out its responsibilities under the MFCMA in accordance with the swordfish FMP developed by the Council and approved by the Secretary. The FMP and its implementing regulations

require that the Council propose to the Secretary the annual variable season closures (VSC), that the Secretary publish the proposal for comment in the Federal Register, and that after considering the public comments, the Secretary decide. (see 50 CFR 630.21(c)). The South Atlantic Council, in consultation with the other four Councils, has approved closures for 1987 ranging from 48 days off New England to 174 days off the South Atlantic. These closures were submitted for review in late July.

QUESTION 2b:

In addition, Dr. Calio has indicated that the only acceptable management option would be a minimum size limit. Is NMFS substituting its management judgement for that of the Councils? Do you feel that such an action is appropriate?

ANSWER: The Secretary has ultimate responsibility for implementation of fishery management plans and must assure that actions taken are consistent with the Magnuson Act and other applicable law. The Secretary has the authority and obligation to exercise judgment in evaluating management options. Dr. Calio suggested a minimum size limit as one alternative that would address the principal management objective, reduction in harvest of small fish, in a less burdensome manner than the VSC. The possibility of other management approaches was not foreclosed. The minimum size was offered as a constructive recommendation. The Councils had requested Dr. Calio's recommendation. A minimum size would reduce harvest of small fish without incurring the adverse impacts that a VSC would have on domestic tuna longliners and the domestic swordfish fleet operating outside the EEZ that now accounts for approximately 50 percent of U.S. landings.

QUESTION 3:

I understand that there is currently a 3-fish per person bag limit on king mackerel in the South Atlantic. What is the condition of the king mackerel stock in this area? Are you aware of any plans to change the bag limit in the South Atlantic?

ANSWER: The king mackerel fishery for the Atlantic migratory group has rapidly expanded since 1979. Catches are now high and variable from year to year. Since the regulations recognizing the existence of the Atlantic migratory group went into effect in September 1985, traditional commercial and recreational fishermen have not taken their respective allocations. The Atlantic migratory group is not overfished but appears to be at or near full exploitation. Recent stock assessment analyses indicate no overfishing of young recruits and that the spawning stock is increasing. There are no plans to change the three-fish per person bag limit in the South Atlantic.

QUESTION 4:

South Carolina fishermen tell me that there have been few Spanish mackerel off the coast in recent years. What is the current condition of this stock? If the stock is in poor shape, what steps are being taken to remedy the situation? I understand that this was one of the first species for which a management plan was developed. How and why did we allow the stocks to decline to their current state?

ANSWER: Although Spanish mackerel was one of the first species for which a fishery management plan (FMP) was developed, it was not implemented until February 1983. During the initial stages of FMP development for coastal pelagics, fishery scientists prepared the first stock assessment for Spanish mackerel. At that time, only size limits of 12 inches fork length (14 inches total length) were deemed appropriate to restrict harvest.

A second stock assessment was completed in 1985. New scientific information indicated the existence of two migratory groups of Spanish mackerel: the Gulf of Mexico and Atlantic migratory groups. Both are considered to be overfished, but overfishing of the Atlantic migratory group appears to be greater. Despite requests by the Councils and NMFS, only Florida has compatible State regulations.

The recent history of Spanish mackerel catches is one of declining landings and catch rates. The commercial net fishery comprises approximately 60 to 75 percent of the total catch, and it occurs during a two- to three-month period in the winter in south Florida. Catches in the early 1970's averaged over 15 million pounds. The Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) have recommended measures to allow recovery of the stock over a period of about three years, including implementation of emergency rules and a long-term plan amendment. These include reducing the total allowable catch, dividing the Spanish mackerel into Atlantic and Gulf groups, and allocating the Spanish mackerel between recreational and commercial users based on historic catches from 1979 through 1985, the most recent period for which catch data are available. These changes will provide the Councils with more flexible management but still protect the Spanish mackerel from overfishing.

QUESTION 5:

What have you done and what do you plan to do to work with the States to ensure that effective measures are in place to conserve red drum in State waters in the Gulf of Mexico?

ANSWER: The Gulf of Mexico Council has submitted Amendment 1 to the Red Drum Fishery Management Plan. The amendment would prohibit all harvest of red drum in EEZ waters off Florida and Texas (secondary area), and defer directed commercial fishing in

EEZ waters off the north-central Gulf States (primary area) until such time that stock assessment data indicate a surplus that can be safely removed. The amendment proposes a one-fish recreational bag limit and an equivalent amount of incidental commercial harvest to be landed in accordance with State laws. To achieve a buildup of the offshore stocks, the States are encouraged to curtail overfishing in nearshore waters and to allow a 20-40 percent level of escapement of juveniles to EEZ waters. All three States bordering the primary area now have approved projects under MARFIN to measure escapement to offshore waters.

QUESTION 6a:

Shrimpers from McClellanville, South Carolina have developed a "soft" turtle excluder device (TED) which is made completely of webbing. What is the status of such soft TEDs with respect to testing for turtle exclusion and certification?

ANSWER: Recently the University of Georgia (Sea Grant) tested three "soft" turtle excluder devices (TEDs) at Cape Canaveral, Florida. One of these "soft" TEDs, made by Mr. Sonny Morrison of McClellanville, South Carolina, performed extremely well. The net equipped with this "soft" TED did not catch any sea turtles and the control net caught more than 40. All of the turtles caught were large adult loggerhead sea turtles. NMFS is currently analyzing data from those tests and studying the detailed descriptions of the TED Mr. Morrison designed.

QUESTION 6b:

As part of their argument against requiring U.S. shrimpers to use TEDs, some individuals contend that (a) Mexico should also require TEDs for its shrimp boats and (b) not enough is being done by Mexico to protect essential sea turtle nesting beaches from human and animal predation. Do you believe these assertions have merit, and what have you done or do you plan to do to address such concerns?

ANSWER: The Mexican government provides complete protection to the nesting beaches of the Kemp's ridley sea turtle during the nesting season. In addition, Mexico recently designated a number of areas as turtle sanctuaries, which will provide protection to several species of sea turtles.

Mexico has informed NMFS that it may require Mexican shrimpers to use TEDs to protect sea turtles. NMFS and University of Georgia Sea Grant shrimp gear specialists recently returned from Tampico, Mexico, where they demonstrated the NMFS and Georgia TEDs. The Mexican crews of both shrimp trawlers wanted the TEDs left in their nets when the Americans left. I believe that these actions by Mexico are providing significant protection for sea turtles, particularly the critically endangered Kemp's ridley.

QUESTION 6c:

What do you think about the proposal to ban imports of shrimp from countries whose shrimp vessels do not carry out endangered turtle protection measures at least as effective as those imposed on U.S. shrimp vessels?

ANSWER: We are not in favor of such action. Instead, we consider it more appropriate to begin to seek international acceptance of endangered turtle protection measures by all nations. Negotiations in this respect are being discussed with the Department of State. While this approach may take a number of years, it has the potential of being more effective if not associated with the trade area. The worldwide shrimp market includes a number of countries other than the United States where shrimp may be sold. Therefore, trade action by the U.S. would likely have limited ability to cause fishing fleets from other nations to utilize endangered turtle protection measures, unless all major shrimp consuming and importing nations had similar measures.

The banning of shrimp imports would also conflict with Administration policy regarding U.S. participation in the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade. At the initiation of the Uruguay Round last fall, the U.S. strongly advocated the principle of "stand still and roll back." In accepting this principle, GATT member countries agreed not to impose new trade restrictions and would take steps to roll back current ones. This principle, which was accepted by the GATT member states, would be violated by the proposed shrimp import restrictions and therefore would be opposed by the Administration.

Answers to Questions Submitted by Senator Kerry

QUESTION 1:

A $4 million reduction has been proposed in the funding for regional fishery management councils. You indicated that the new council operating regulations would increase the councils' efficiency to compensate for that reduction. Please outline how these cost savings will occur.

ANSWER: The new regulations will improve accountability for Council operations and will provide for consistency in operational procedures. While some savings are likely to result, the major part of the reduction will come from allocating funding to higher priority programs and streamlining activities the Councils undertake. This would maintain the eight Councils as currently structured but still permit higher priority actions required for the maintenance of existing fishery management plans (FMPs). Since NMFS and the Councils believe that the most productive and controversial fisheries are now or will soon be under management, the number of new plans developed each year is small. The Councils, faced with controversial allocation decisions within the fisheries managed by these FMPs, are concentrating their efforts on plan amendment and monitoring; a shift away from plan development. In addition to monitoring and amending FMPs, another trend has been the consolidation of one or more FMPs under one management regime as well as the implementation of "framework" FMPs that enables us to make and implement annual and in season management decisions in a more cost efficient and timely manner.

Reductions in Council staff and numbers of meetings are anticipated to result from those shifts in workload and the Councils will continue to rely on the NMFS for special studies, data collection and analysis, and other informational needs.

QUESTION 2:

The Administration suggested cutting $1.1 million from the budget for the NMFS Northeast Region's programs, including activities relating to statistics, habitat conservation, and trade development. Won't this cripple much of the NMFS fishery activities in the Northeast?

ANSWER: The NMFS Northeast Regional office supports the operation of several activities related to statistics, habitat conservation, and trade development. It also provides major support for fisheries management and conservation programs which implement the Magnuson Fishery Conservation and Management Act. In response to provisions of the Gramm-Rudman-Hollings Deficit Reduction Act and reduced Federal spending targets, a

number of lower priority NOAA and NMFS programs were proposed for reduction in the FY 88 Administration's budget. The reductions proposed for fishery activities in the Northeast will not significantly impede the agency's ability to meet its highest priority objectives.

QUESTION 3:

The Administration budget would also cut the budget of the NMFS laboratory in Woods Hole, Massachusetts. How much is this cut and what activities will have to be curtailed as a result of it?

ANSWER: The Administration's FY 88 budget proposed approximately $500K in reductions at the NMFS laboratory in Woods Hole. These reductions would curtail low priority activities which support resource survey operations and marine mammal research, and terminate support for Atlantic salmon research. Proposed reductions would also curtail statistical data research. The proposed reductions would not significantly affect the ability of the Woods Hole laboratory to carry on with its highest priority programs.

QUESTION 4a:

In addition, the Administration proposes deactivation or reduced days at sea for all of NOAA's fisheries research vessels, including the ALBATROSS IV and DELAWARE II, both homeported at Woods Hole. How can you justify this action prior to completing the required study on the implications of conducting fisheries research using chartered vessels instead of using NOAA vessels?

ANSWER: The deactivations and reduced days at sea proposed in the FY 88 NOAA budgets are consistent with reductions in corresponding low priority and unnecessary NOAA programs. The proposed actions are not limited to NOAA fisheries research ships or just the ALBATROSS and DELAWARE. Such reductions also are not connected with NOAA's ongoing effort to determine a method for comparing the use of charter ships or NOAA ships to support NOAA's programs.

QUESTION 4b:

What research will have to be postponed or eliminated as a result of these marine service reductions?

ANSWER: As a result of this reduction the ALBATROSS IV will be fully inactivated while the DELAWARE II will be reduced from 243 to 180 days at sea in FY 88. This 63-day reduction in NOAA ship support for the Northeast Fisheries Center will

result in the elimination or severe reduction of ship support for the following low-priority programs:

Haddock recruitment surveys
Environmental surveys of Middle Atlantic dump sites
Icthyoplankton surveys
Predator-prey studies
Development of gear for sampling surveys

QUESTION 5:

Do you believe your Agency and the Coast Guard have the funds to adequately enforce the groundfish management plan, with respect to dockside inspections and boardings at sea? Please comment on the overall effectiveness of NMFS fishery enforcement.

ANSWER: We cannot speak for the Coast Guard on the adequacy of their funds, however, present resources coupled with close cooperation with the Coast Guard and the individual States allow us to adequately meet our enforcement responsibilities under the groundfish management plan. We believe NMFS law enforcement to be effective and expect the recent centralization of our program to provide more effective and efficient enforcement.

QUESTION 6a:

You indicated that biological monitoring on Georges Bank would be increased to assess the potential impact of offshore oil activity on the fisheries and environment. Please outline NMFS's monitoring efforts in that area.

ANSWER: NMFS' current monitoring efforts in the Georges Bank area are part of our MARMAP (Marine Monitoring, Analysis, and Prediction) Program. This includes routine surveys to gather data on abundance and distribution of phytoplankton, zooplankton and icthyoplankton as well as fish egg and larvae assessments. Water column profiles (temperature and salinity) are included in the surveys. Routine surveys are also made of abundance and distribution of demersal and pelagic fishery resources. Results are provided in regular scientific publications and in reports for the New England Fishery Management Council and other fishery and resource organizations and agencies.

NMFS has been heavily involved in North Atlantic/Georges Bank OCS matters since the mid-1970s, when the issue of fish vs. oil on Georges Bank became very controversial. The interagency Biological Task Force (BTF) was formally established in October 1979 in response to public concern over this issue. The Secretary of the Interior, the Administrator of NOAA, and the Administrator of the Environmental Protection Agency signed a charter forming a BTF to oversee oil and gas operations

in the North Atlantic resulting originally from the Lease Sale 42. The original members included three agencies from the Department of the Interior [Bureau of Land Management, U.S. Geological Survey, and U.S. Fish and Wildlife Service], NOAA [represented by NMFS], and EPA.

The BTF's current role involves making recommendations to Interior's Mineral Management Service on (a) the application and enforcement of stipulations relating to the protection of biological resources and habitats, (b) the design of environmental studies and surveys, and (c) periodic sampling of environmental conditions to provide warnings of adverse impacts.

NMFS's Northeast Regional Office provides the NOAA representation on the BTF and is the focal point for OCS matters, including the preparation of Biological Opinions for threatened and endangered species requested during formal consultation under Section 7 of the Endangered Species Act. The Northeast Fisheries Center conducts research and monitoring studies, and provides data and information useful in assessing the potential impacts of OCS activities on living marine resources in the Georges Bank and Gulf of Maine area. Center research staff also assist the BTF staff and serve on various scientific advisory boards, and interact with other scientists on a regional, national, and international basis.

QUESTION 6b:

Will an increased allocation of funds be required?

ANSWER: We are not increasing our oil and gas related monitoring in this geographic area because we believe that given the current level of leasing and development activities, our efforts are adequate. Accordingly, this year we have not sought an increased allocation of funds for monitoring possible effects of oil and gas leasing on the fisheries and environment in the Georges Bank area. However, we are planning to increase our sampling efforts in marine ecosystems nationwide and appropriate emphasis will be placed on study of living marine resources in the Georges Bank area.

QUESTION 7:

According to some experts, there has been a recent seal population explosion. Some evidence suggests that seals consume 2-10 times the amount of fish caught by fishermen of all nations. Recently, a seal with tags from Nova Scotia was found off the Rhode Island coast. Keeping this in mind, has the Center at Woods Hole collected any data on the seal population in the New England area or on their effects on stocks? Could the Center conduct such a study?

ANSWER: Two species, the harbor seal and the gray seal, occur in New England waters. While the harbor seal population is numerous, the gray seal is not, since New England occurs at the southernmost extremes of its range. The Northeast Fisheries Center at Woods Hole has conducted aerial surveys the past six years to examine the distribution and abundance of harbor seals. So far the data indicate qualitatively that this species has been increasing. The Center has not undertaken studies of the effects of harbor seals on fish stocks but rather used available funds in the past to fund higher priority contract work which assessed the problem of marine mammals becoming entangled in fishing gear.

QUESTION 8:

Do you feel that the Northwest Atlantic Fisheries Organization (NAFO) has provided effective management of the offshore fishery resources of the North Atlantic? Please explain.

ANSWER: There are 12 member nations to the NAFO Convention: Bulgaria, Canada, Cuba, Denmark (in respect of the Faroe Islands and Greenland), the European Economic Community (Spain and Portugal are now represented by the EEC), German Democratic Republic, Iceland, Japan, Norway, Poland, Romania and the USSR. Other key countries have fished in international waters in or around the NAFO regulatory area over the past several years and are not NAFO members. The United States, Mexico, Venezuela, Panama, Chile, Peru and the ROK fit into this category. The United States and Mexico do attend NAFO meetings as observers.

Among the more important species, NAFO regulates fishing for cod, redfish, American plaice, yellowtail flounder, witch flounder, capelin and squid (Illex), using the management philosophy of "F 0.1 mortality." This management objective is more conservative than its U.S. counterparts and is thought to produce a better distribution of year classes in a given stock (for long-term stability) while maintaining economic efficiency.

NAFO assigns quotas to its member nations based on the total allowable catch (TAC) for each species. Non-members fish in the NAFO regulatory area without an allocation while some member nations overfish their quotas. As a result, the TAC set by NAFO is almost always exceeded. For example, in 1986 the NAFO TAC for yellowtail flounder was 15,000 mt whereas the total catch was 29,336 mt, almost double the TAC set. Member countries, such as Portugal and Spain, do not adhere to their allocation. In 1987, France is allegedly overfishing cod in NAFO area 3P (which is inside the Canadian zone) by almost 20,000 mt whereas its quota is 6,400 mt. Thus, NAFO has not been able to keep the catch within the TAC established.

One problem is that the NAFO regulatory area includes part of the Grand Banks resulting in straddling stocks with Canada. The Flemish Cap is another problem area wholly outside the Canadian EEZ and with self-contained stocks. These fishing areas are exploited by non-members and members alike. Non-members have little interest in joining NAFO unless quotas will be made available. As yet, such offers are not forthcoming and as a result, non-members believe they are better off fishing outside the Convention framework. NAFO does have potential. Its management objectives are worthwhile; however, the behavior of the member and non-member states are a key factor on whether the objectives are achieved. NAFO's effectiveness is dependent on member countries adhering to the TACs and non-member countries recognizing the management scheme of the organization.

Answers to Questions Submitted by Senator Breaux

TURTLE EXCLUDER DEVICES - TEDs

QUESTION 1:

A fundamental problem that has greatly contributed to the difficulty we are experiencing in resolving the mandatory TEDs use issue is the extreme lack of NMFS scientific data documenting the biology and distribution of sea turtles, where and when TEDs actually work, and even the very attribution of sea turtle mortality to shrimp fishing. What commitments of resources does the agency plan to make to further resolve these most basic questions in the coming months? This effort would be central to the responsible resolution of the TED situation.

ANSWER: Admittedly, we do not know in detail all there is to know about sea turtle distribution and biology. What we do know is more than adequate to demonstrate that different species are ubiquitous, though in low density, in coastal and pelagic waters of the Gulf of Mexico and Atlantic Ocean off the U.S. Our tests of the NMFS were conducted aboard commercial shrimp trawlers in the Gulf and Atlantic. This has been a voluntary program as we had no means of requiring anyone to participate. We encountered some unique situations which required minor adjustments. But, in most cases, the NMFS TED worked effectively at eliminating sea turtles and retaining shrimp wherever shrimp trawlers tested it.

Attributing a mortality rate of sea turtles to the shrimp industry is a difficult problem. Scientists know very little about mortality rates of sea turtles from natural or other anthropogenic causes. NMFS has not focused its research on determining survivor and mortality rates from various causes.

NMFS is developing a comprehensive research plan to focus its existing resources on addressing the information needs concerning the incidental catch and mortality of sea turtles associated with shrimp trawling. Our sea turtle research program has been and will continue to focus on distribution of turtles and their incidental capture by shrimpers. Both our appropriated turtle research funds and sea turtle scientists will be dedicated to this research. In addition, we are working to obtain additional funding from outside sources to do some of this work.

The NMFS base budget for sea turtle and TED research in the Southeast is approximately $1.088M for FY 87.

QUESTION 2:

Also fundamental to the responsible resolution of the TED situation is the development of a TED that is easier to use, safer to use, is less expensive, and most of all, does not lose a significant amount of shrimp along with the sea turtles. Many feel that a "soft" TED is the answer--that is, one that is constructed out of the same netting twine as is a shrimp net--rather than steel or fiberglass bars that are currently in use. What commitment has the agency made to the development of this crucial piece of equipment?

ANSWER: NMFS is aware of several TEDs that have not been certified, including the so-called "soft" TEDs. The University of Georgia (Sea Grant) recently tested three of these "soft" TEDs for turtle exclusion at Cape Canaveral. One of these devices, made by Mr. Sonny Morrison of McClellanville, South Carolina, worked extremely well. During the tests this soft TED did not catch any sea turtles and the control net (without a TED) caught more than 40. NMFS is currently evaluating data from those tests and studying detailed descriptions of the TED Mr. Morrison designed.

NMFS does not plan to develop any new TEDs; this is not an appropriate Federal activity but rather something the industry should pursue. Shrimpers and netmakers have a lot of ideas about how to resolve these problems and have the ability to implement them. We will assist TED manufacturers with their designs and supervise tests for them that may lead to certification.

QUESTION 3:

The Kemp's ridley turtle is largely the source of the TED situation because it is listed as "Endangered" under the Endangered Species Act. Since the Kemp's ridley turtle only lays its eggs on a relatively small strip of beach in Mexico, and since this turtle is generally distributed throughout much of the area that is the focus of the extensive Mexican shrimp fishery, what formal efforts are being pursued by NMFS and the State Department to--

> --ensure that the reproduction of this endangered species is protected by the Mexican government, and
>
> --ensure that Mexican shrimp fishermen also accept their share of the responsibility to protect this species through TED use or other means?

ANSWER: At this time we are working informally with Mexico to ensure that the Kemp's ridley sea turtle receives adequate protection. Mexico has taken a number of significant actions in this area, including protecting the Kemp's ridley's nesting

beaches, designating sea turtle sanctuaries and transferring TED technology to its shrimp fleet. Recently Mexico has indicated that it may require TEDs to be used in Mexican waters. I will continue to point out to Mexican officials the benefits of having their shrimpers use TEDs. I believe that Mexico has taken significant steps to protect the Kemp's ridley sea turtle and will continue to do so.

QUESTION 4:

The Pelly Act authorizes the President to embargo the importation of fishery products from a Nation whose nationals ... "directly or indirectly, are conducting fishery operations in a manner or under circumstances which diminish the effectiveness of an international fishery program."

-- CITES is such an international agreement designed to protect endangered species worldwide.

-- Mexico exports $300 million worth of shrimp to the U.S. each year.

If Mexico fails to adequately protect endangered sea turtles, is it the opinion of your agencies that the provisions of the Pelly Act could or should be invoked?

ANSWER: CITES is an international agreement designed to protect endangered species by prohibiting trade in endangered species products. The use of turtle excluder devices is not a part of the fisheries conservation program defined under CITES and therefore it would be unlikely that the provisions of the Pelly Amendment to the Fishermen's Protective Act could be invoked against Mexico if it fails to implement the TED or to take steps to ensure the reproduction of the Kemp's Ridley turtle.

QUESTION 5:

If the Pelly Act cannot or should not be invoked, does your agency support a legislative amendment to the Endangered Species Act that would give similar authority to the President if Mexico or other nations fail to achieve some appropriate level of endangered sea turtle protection?

ANSWER: We do not believe action under the Pelly Act should be taken, nor do we support such amendment to the Endangered Species Act. Instead, we consider it appropriate to begin to seek international acceptance of endangered turtle protection measures by all nations in the Caribbean. Negotiations in this respect are being discussed with the Department of State. While this approach may take a number of years, it has the potential of being more effective if not associated

with the trade area. The worldwide shrimp market includes a large number of major countries where shrimp may be sold other than the United States. Therefore, trade action by the United States would likely have limited ability to cause fishing fleets from other nations to utilize endangered turtle protection measures, unless all major shrimp consuming and importing nations had similar measures.

As we pointed out in the response to a similar question from Senator Hollings, such action would also conflict with Administration policy regarding U.S. participation in the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade. At the initiation of the Uruguay Round last fall, the U.S. strongly advocated the principle of "stand still and roll back." In accepting this principle, GATT member countries agreed not to impose new trade restrictions and would take steps to roll back current ones. This principle, which was accepted by the GATT member states, would be violated by the proposed shrimp import restrictions and therefore would be opposed by the Administration.

REDFISH

QUESTION 1:

The Secretary of Commerce has imposed a rather conservative fishery management plan on the redfish fishery in the Gulf of Mexico with the promise to conduct in the meantime an extensive multi-year research program to gather data which would ultimately allow the development of an informed fishery management plan--yet, the President submitted a budget for FY 1988 that eliminates the MARFIN program that is the primary source of funding for federal redfin research. Why!?

As you know, the MARFIN program has been a very valuable and flexible tool over the years for addressing quite a range of fishery management crises in the Southeast and Gulf Region including king mackerel and the TEDs as well--yet the President has never requested funds for this program!

ANSWER: Management measures are now in place which provide protection for the redfish stock. The MARFIN program, a marine fisheries initiative for defining and developing the economic potential of the non-traditional fishery resources of the Gulf of Mexico and South Atlantic, supports activities the funding for which is more appropriately an industry responsibility. Consequently, funding was not requested for the MARFIN program. It should be noted, however, that MARFIN was among those programs proposed for funding contingent upon enactment of the Marine Fisheries Conservation Assurance Program Act legislation, which would impose a user fee to help support the conservation and management of the Nation's fishery resources.

QUESTION 2:

The only fishery management plan that has ever been developed by the Secretary of Commerce for failure of the Regional Councils to do so is the Redfish Plan. Yet, this plan is subject to at least four lawsuits challenging its validity in terms of the provisions of the Magnuson Fishery Conservation and Magnuson Act. What is the status of these actions and what are your plans to ensure the continued management of redfish in federal waters in the event that the Redfish Plan is nullified in court?

ANSWER: The Gulf Council has submitted Amendment 1 to the FMP and it is currently in the public review and comment period, until July 25, 1987. The amendment proposes to prohibit commercial fishing for red drum in the EEZ waters off Florida and Texas and to prevent commercial fishing in the EEZ waters off of the other Gulf States until such a time that a 20 percent escapement level of juveniles to the adult fishery is achieved. The amendment would continue a 1-fish recreational bag limit to be landed in accordance with State laws. In response to the submission of the Amendment, the parties have filed joint motions in the Louisiana and Texas district courts to stay the proceedings in the respective cases, pending the outcome of the Secretary's review of Amendment 1 and the implementing regulations. Florida has filed a motion for a stay in the D.C. proceedings for the same reason. None of the courts have ruled on the motions.

QUESTION 3:

Because the Secretary's plan for redfish is so conservative--it completely bans all directed commercial harvest of redfish in federal waters-it is my understanding that a great deal of the U.S. demand for this product is now being supplied by Mexico. Since the Mexican redfish are likely to be of the same stock that contributes to the U.S. fishery, and since at least NMFS feels it is so important to stop directed commercial redfish harvest in federal waters, what formal actions is your agency taking to ensure that Mexican fishermen do not "destroy" the American redfish fishery that we are taking such extreme actions to protect?

ANSWER: No formal action is currently being taken to influence Mexican imports of red drum. However, the imports of red drum from Mexico have not been significant. Since January 1987, approximately 200,000 lbs. have been imported. We believe that the demand is shifting away from red drum, particularly in the restaurant trade. The popularity of the "blackened" fish has expanded to almost every other edible finfish species. With no catch restrictions on certain other species, substitution is occurring.

Answers to Questions Submitted by Senator Adams

QUESTION 1:

You object to the provision in S. 62 that calls for a 60-mile seabird protection zone around the Aleutian Islands on the basis of the provision's incompatibility with the International North Pacific Fisheries Convention (INPFC). Please discuss the difference in your views from those expressed in last year's report from this Committee on the same provision. What limits for the zone would you find acceptable?

ANSWER: We note that the report (99-529) issued by the Committtee on Commerce, Science, and Transportation regarding seabirds includes reference to a recent study by the U.S. Fish and Wildlife Service (FWS). NOAA does not evaluate data on the populations of seabirds. Accordingly, we cannot comment on the suitability for establishing a seabird protection zone to limit Japanese fishing operations around the Aleutian Islands. We therefore defer to the FWS on this issue. Nevertheless, we understand that closing a 60-mile zone around the Aleutian Islands would change the Japanese fishing area allowed under INPFC and would probably necessitate extensive negotiations to gain Japanese and Canadian consent to these changes. We also have preliminary data that suggest a 60-mile seabird protection zone may result in increased mortality for pregnant and lactating Dall's porpoise. This could occur if the Japanese driftnet operations increase fishing effort outside the 60-mile zone to obtain salmon catch quotas within the U.S. EEZ.

QUESTION 2a:

You refer to the continent-of-origin salmon research program between the United States, Canada, and Japan. When was the program established?

ANSWER: The program was begun on an ad hoc basis in 1977 and formalized by the International Pacific Fisheries Commission in 1979.

QUESTION 2b:

Does it provide for extensive data collection on the impact of Japanese drift-net fisheries on seabirds and marine mammals?

ANSWER: No, this program is to provide and analyze salmon scales for distinguishing marks indicating continent-of-origin.

QUESTION 2c:

How many U.S. or Canadian observers would be placed on Japanese vessels under the program, and what percentage of the Japanese salmon fleet would be covered?

ANSWER: No observers are placed on Japanese vessels under this program.

QUESTION 2d:

You note concern about the effect of "unilateral" action by the United States under S. 62 "shortly after" concluding this salmon research program. If S. 62 became law by October 1987, how long after the salmon research agreement was concluded would sanctions be available for failure of Japan or other nations to reach an "adequate" agreement with the United States under S. 62?

ANSWER: Under the terms of S. 62 the United States could not issue any fishing permit to a vessel of any foreign government that fails to enter into a cooperative fish, seabird, and marine mammal monitoring agreement within one year after passage of the law.

QUESTION 3a:

You suggest educating fishermen regarding the negative effects of ocean debris instead of instituting a net bounty system. What have you done to date to educate fishermen, and do you have reason to believe that your educational efforts have been effective?

ANSWER: We have developed with contractor assistance a training program on the effects of ocean debris on living marine resources. Presentations have been made to West Coast fishermen and to Japanese and Korean fishing groups. The presentations have been well received and we have found strong industry support in this education process. The enclosed poster, funded by the Coalition of Pacific Coast Trawlers in association with NMFS is indicative of this support. Based on the reception of this initial effort, a similar presentation focused for East Coast fishermen is being developed.

QUESTION 3b:

Have the foreign governments sponsoring the pelagic driftnet fleets taken steps to educate their fishermen, and have you seen signs that this effort has been taken seriously?

ANSWER: According to information from Japan, since 1986 the Japanese government has required submission of reports on the use of nets in Japan's trawl fisheries. At ports of landing, inspectors occasionally examine nets. In the salmon driftnet fisheries, Fisheries Agency inspectors are required to examine the number of tans of embarked nets before the ship's departure from port, and fishermen are obliged to report on the use of nets after completing the fishing cruise. In the squid driftnet fishery, the Japanese Government has been advising the fishermen to report about the proper use of nets for each cruise since 1984 and has required such reporting since 1987.

All trawl motherships, large-sized trawl ships and salmon motherships have onboard combustion facilities for disposal of net debris. The squid driftnet fishing vessels are instructed to install the same facilities. Approximately 60% of them have now done so. Japan has been actively promoting educational and publicity activities for fishermen to prevent the occurrence of lost nets and waste disposal at sea.

QUESTION 4:

Regarding your cooperative efforts with other nations to obtain data on the foreign high seas squid driftnet fisheries, what percentage of the Japanese squid fleet will carry U.S. scientists in 1987? What percentage of the Taiwanese fleet? The Korean fleet?

ANSWER: We will have an observer on one Japanese commercial squid driftnet boat and two Japanese squid driftnet research vessels. These commercial and research vessels represent less than one percent of the fleet. We will also place an observer on one Taiwanese squid research vessel and on one Korean squid research vessel, which each represent about one percent of the respective fleets.

QUESTION 5:

Under the Magnuson Act, all foreign vessels in our 200-mile zone are required to carry U.S. observers who collect data on seabirds and mammals as well as fish. What will be the effect of the foreign fishing phase out on the ability of NMFS to assess fishery resources and the effects of fisheries on marine mammals and seabirds? If the effect is to decrease information, what other methods are available to obtain needed information?

ANSWER: This program is to assess the impact of foreign fishing on fish, bird, and marine mammal stocks. As foreign fisheries are phased out we will continue the observer program on the remaining vessels. Of course the loss of these observer data will decrease information. We are considering the effect of the loss of these data and other methods of obtaining essential information.

QUESTION 6:

Please provide a brief update on the progress of NMFS's net entanglement study. With respect to monitoring the Japanese squid driftnet fleet - how many operations were observed in 1986? What proportion of the driftnet fishing effort was this?

ANSWER: The NMFS net entanglement program is involved in ongoing diplomatic efforts to arrange cooperative research programs on the high seas driftnet fisheries operated by Japan, the Republic of Korea, and Taiwan. These efforts are focusing in two distinct areas of U.S. interest. First, cooperative research is being arranged to understand the factors affecting the distribution and mixing of stocks of fish, marine mammals and seabirds, particularly the oceanography of the area. Second, scientifically-based observer programs aboard commercial vessels are being proposed to each of these countries to estimate the actual take of species of interest to the U.S.

For the 1987 fishing season, the arrangements for cooperative research cruises in the squid fishing area of the North Pacific are in place with Japan (2), Taiwan (1), Korea (1), and Canada (1). An international scientific workshop on this subject is being planned for the Spring of 1988. As of this writing, no commercial squid fishing vessel observations have been arranged. Korea and Taiwan initially claimed that their vessels are unsafe for carrying western observers. Negotiations are continuing with these nations.

The Japanese are currently in negotiations with their squid fishing association on the matter and are in contact with NMFS. The probability of placing U.S. observers aboard Japanese commercial squid driftnet vessels in 1987 cannot be estimated. Negotiations for scientifically responsive observer sampling in these fisheries for the 1988 season are just beginning. The proposed sampling plan for 1988 includes 26 observer cruises.

In 1986, 30 Japanese squid gillnet operations were observed by a U.S. biologist between July and August. Preliminary information from Japan indicates there were approximately 37,316 gillnet sets in the squid fishery. Therefore, approximately .08 percent of the squid gillnet sets were observed in 1986.

QUESTION 7:

Please bring the Committee up-to-date on NMFS activities with respect to the "laundering" of illegally caught salmon for export to Japan.

ANSWER: There are currently three Lacey Act lawsuits that have been filed seeking the forfeiture of shipments of imported salmon. They are as follows:

-- The Tacoma case: United States v. 594,464 Pounds of Salmon, More or Less, W.D. Wash. C86-666TB

In this case, the salmon were seized after the importer, Union, Inc. of Costa Mesa, California, brought the fish to the United States from Singapore for the purpose of re-exporting it to Japan. The Government has charged that the salmon, in fact, originated in Taiwan and were illegally exported from Taiwan as part of an effort to market them illegally in Japan after transshipping through the United States to hide their true origin.

Earlier this year, pursuant to court order, the fish were sold through a public sale process to ensure that the disputed property did not decline in value during the litigation. The proceeds of the sale ($588,755) have been deposited in the registry of the court and will be awarded to the prevailing party in the lawsuit.

Union, Inc. has filed several motions in an effort to have the Government's case dismissed. The motions argue mainly that the applicable provisions of the Lacey Act Amendments of 1981 (specifically 16 U.S.C. 3372(a)(2)(A)) do not apply to underlying violations of foreign regulations, only foreign statutes. The Taiwan export restrictions at issue in the case are implemented through regulations. As regulations, Union, Inc. argues that they may not serve as the basis of a Lacey Act forfeiture proceeding. The District Court denied motions by Union, Inc., holding that Taiwan law prohibits the exportation of salmon and that the Taiwan export restrictions are "foreign law" as that term is used in the Lacey Act.

The District Court has granted Union, Inc. permission to seek interlocutory appeal of the court's ruling before the Ninth Circuit Court of Appeals. Trial in this case originally was scheduled for December 1987. While the interlocutory appeal request is being considered, the District Court procedings have been put on hold. The agency has also assessed civil penalities totaling $150,000 against Union, Inc. and its general manager, Young Ho Lee, for illegally importing the seized salmon and thirteen other shipments of salmon allegedly exported from Taiwan illegally. Lee and Channel U.S.A. Corp. of Fullerton, California, have been assessed $40,000 in civil penalties in a related case for similar activities.

-- The Bellingham and Oakland cases: United States v. 208,048 Pounds of Salmon, More or Less, W.D. Wash. C87-321D, and United States v. 199,092 Pounds of Salmon, More or Less, N.D. Cal. C87-2616MHP

In these cases, National Marine Fisheries Service agents seized salmon in Bellingham, Washington, and several locations in California as part of what the Government alleges was an operation by which a San Bruno, California importer, Wescon

Trading International, was bringing salmon to the United States from Japan, relabelling it as a product of the United States, and re-exporting it to Japan. The forfeiture actions are based upon the Lacey Act's prohibition against making a false label or record for fish that have been imported or transported in interstate commerce. In addition, in the California case, the Government is alleging in the alternative either that the fish were exported from Japan in violation of Japanese law (Japan requires frozen seafood to be inspected and to bear inspection labels before it may be exported), or that they did not originate in Japan and that the importation documents submitted by the importer were false. These lawsuits were only recently filed and no action has occurred in either suit yet. A third forfeiture action will be filed soon in U.S. District Court for the Central District of California aimed at an additional 173,155 pounds of salmon seized at Riverside, California as part of the same operation. No decisions have been made yet regarding the assessment of civil penalties in connection with this case. NMFS agents are continuing to investigate both cases.

QUESTION 8:

What is the feasibility of applying remote sensing techniques to monitor the location of driftnet vessels?

ANSWER: Such a program would be technically feasible since the technology exists in off-the-shelf form. Implementation would require installation of a small signal transmitter on each vessel. The transmitter sends a coded message giving vessel location to the satellite when the satellite is in appropriate position to receive. Satellite time is currently available on the ARGOS system.

Senator KERRY. Thank you very much. We appreciate that.

My colleague, Senator Stevens from Alaska, has arrived, and I wonder if he has an opening statement at this time that he would like to make.

OPENING STATEMENT BY SENATOR STEVENS

Senator STEVENS. Mr. Chairman, I do have an opening statement.

I first want to thank you very much for holding this hearing. I think that the subjects before this Committee this morning are extremely important to not only the whole country but particularly to my state.

Mr. Chairman, I am very pleased to participate in this hearing of the National Ocean Policy Study [NOPS] and Full Committee on oversight of the fisheries programs of the National Marine Fisheries Service [NMFS] and Department of State, and on S. 62, a bill dealing with the driftnet problem. Both of these subjects are extremely important to citizens of my State of Alaska, and I am grateful to you for convening this hearing to consider them.

As you know, I am deeply concerned about the increasingly serious problems posed by the growing driftnet fisheries of Japan, Republic of Korea, and Taiwan in the North Pacific Ocean. These plastic nets, each measuring up to 34 miles in length, are set by more than 1,500 vessels for a total of more than one million miles of net each fishing season. Tens of thousands of marine mammals and hundreds of thousands of seabirds become entangled and die in the nets each year, and North American-origin salmon are illegally caught when vessels, ostensibly targeting squid, set their nets where salmon occur.

A very complete record of the problems associated with driftnets was developed by this Committee in an oversight hearing in October 1985. Based upon that hearing and the lack of progress in resolving those problems, I introduced S. 2611 in June 1986, and the Committee reported the bill, without objection and without amendment, on July 23, 1986. A full discussion of the need for that legislation and its provisions is contained in Senate Report 99–529. Unfortunately, and much to my surprise, concerns were raised by New England fishermen that the legislation might be misinterpreted as an extension of our jurisdiction, and further consideration of the bill was not possible during the remaining days in the 99th Congress.

S. 62, which I introduced on January 6, 1987, and is cosponsored by Senators Murkowski, Danforth, Packwood, and Dodd, is very similar to S. 2611 but contains several modifications that were made in an effort to respond to the concerns expressed about S. 2611. Let me just briefly summarize those modifications.

First, the requirement that observers be placed on all catcher vessels of the Japanese mothership salmon fleet while they fish within our Exclusive Economic Zone [EEZ] has been changed to require a sufficient number of research observers to ensure 95 per-

cent confidence in the estimates of fish, seabirds, marine mammals, and other living marine resources killed inside our Zone.

Second, the Secretary of Commerce is granted authority to modify the Seabird Protection Zone around the Aleutian Islands upon a finding that such a modification will provide an equal or greater degree of protection. Here again, the Protection Zone is inside our EEZ.

Third, the Secretary is provided two years to enter into cooperative monitoring and research agreements with foreign nations before the Secretary may exercise discretionary authority to deny joint venture permits to vessels of nations that refuse to agree to such arrangement.

Finally, a section has been added that clearly states that the legislation shall not be construed as an extension of our jurisdiction. This is obviously the case because it calls for cooperative research and monitoring outside our EEZ and does not, in fact, regulate or attempt to regulate any activities outside our Zone. The authority to deny a foreign nation the privilege of fishing in our Zone is, of course, well established and has been exercised under the "basket clause" and Packwood-Magnuson amendment of the Magnuson Act for a variety of reasons, none of which has been as directly related to the impact on fish within our Zone as would be the refusal to cooperate in research on the impact of driftnetting.

Unfortunately, Mr. Chairman, the problems caused by driftnets have not gone away since this Committee last considered the issue, and they be even worse than we had believed. The NMFS recently seized several hundred thousand pounds of salmon which was apparently caught illegally by driftnet vessels on the high seas. In addition, the Administrative Law Judge reviewing the Japanese mothership salmon fleet's application for a permit to incidentally take marine mammals within our EEZ recently transmitted his recommended decision to NMFS. Although I do not propose to discuss his recommendations with NMFS officials because of the limitations on ex parte communications, the Committee should know that his findings regarding the driftnet fisheries inside and outside our EEZ confirm the need for S. 62, regardless of the decision on the permit application under the Marine Mammal Protection Act.

I remain deeply concerned about the driftnet problem, and I have just reviewed Dr. Evans' testimony and am looking forward to Mr. Wolfe's testimony. I think we must do something about driftnets. Understanding the position of the National Marine Fisheries Service, I urge that we find some way to get together to see what we can do to take the first steps towards eliminating this menace to the North Pacific.

It is not just driftnets. I really believe that the North Pacific is becoming a plastic sea. You cannot go out there now without getting fouled up in some way with plastic. More and more people are telling me about the tremendous problem of just being there in terms of dealing not only with the driftnet pollution but the total plastic pollution that is coming from these staggeringly large fleets that are up there now harvesting our groundfish.

Some of those fleets are our own, and we are going to come up with a proposal to deal with observers for our own vessels. I think our people will support putting observers on domestic vessels. My

proposal in S. 62 says we should have sufficient coverage of all foreign driftnet vessels to generate an estimate of 95 percent confidence. There are some of them we cannot handle, and it is not because we do not want to have people there, but they really are not contributing to the pollution problem, and I do not think that we should insist that we have total 100 percent coverage at this time.

I am disturbed, Mr. Chairman, about a development which came to our attention. It is not just the fisheries resources that are jeopardized by this plastic. It is now our bird population that is being killed on shore as these nets are cut away by vessels either just before they are apprehended or when they are in trouble with a storm. They are drifting ashore, and they are ensnaring seabirds and mammals at an alarming rate.

I understand that the National Marine Fisheries Service has some difficulty with our initial draft. I think we should try to work that out, but I am hopeful. I am looking forward, for instance, to listening to the New England panel today to see if we can eliminate the problem that occurred last year.

Someone really has to pay some attention to the North Pacific. We are taking now over 1 million metric tons of fish for our own use. In the past, the Soviets and Japanese and other foreign fishing fleets have taken as much as 5 million metric tons of fish out of the North Pacific annually. Now, that is a tremendous resource for mankind, but it is being destroyed now by the innovation of these monofilament plastic nets. They are up to 35 miles long. They are unmanageable, and they are being ignored in terms of the regulatory process not only by our Nation but by the other nations fishing in the North Pacific.

Dr. Evans, I am going to look forward to pursuing further with you the statement that you have just made, because I understand you have some problems with the bill but I do not think it recognizes the emergency aspects of the situation in the North Pacific. I do believe we have to recognize that emergency if we are going to be successful at all in turning around this great problem that has come about in our life up there as far as marine resources are concerned.

So again, my friend, I really thank you for taking the time, and I hope you will help us work this out. I think it is probably the worst problem that the Alaskan marine area faces, the problem of plastic pollution, particularly these driftnets. So I thank you very much.

Senator KERRY. I thank you for that statement. Needless to say, we know of your deep concern in that region and all you have been doing over the years to try to protect the interests of that region. I think we all share, no matter where we come from, a concern about the ability to be able to preserve the integrity not only of the fishing grounds but also of all the other areas that seem to be impacted in the unforeseen consequences of these efforts. So we are going to work to do that.

Mr. Wolfe, because we have a lot of people backed up, I would like to try to keep it moving. I am going to put us on a 10-minute time clock here. We would appreciate also your summary. Without further ado, you have the floor.

Senator STEVENS. Mr. Chairman, I think we should comment on the fact that I am told that our friend, Mr. Wolfe, if you will

pardon the pun, had a little bit of an argument with his own dog last night. A 70-pound Labrador overcame a 200-pound Wolfe.

Senator KERRY. I thought he was going to claim to have done it in negotiations with the Canadians or something.

Mr. WOLFE. Thank you, Senator Stevens, for that kind opening. Having left the emergency room about 5:00 a.m., my opening comment was going to be this is what happens to an administration official who does not work with the Pacific Northwest and the New England fishing constituencies.

Seriously, it was a Lab pup, and he displayed his affection a little more intensely last night than he normally does. I am happy to be here, regardless of the Lab pup.

Senator Kerry, you made the statement earlier that the timing of the hearing was good. The Department of State could not agree with you more. We have been working with Senator Stevens and others on the Committee for the past three or four years, trying to resolve these issues, and we also agree that it is time to bring them to the forefront. I think this type of hearing is a way to do that.

The staff of the Committee has asked that we provide thorough statements. We have provided a cleared 24-page statement with corresponding comments on S. 62. I will be briefer than the 10 minutes and try to do everything in five minutes because I would like to have the time to respond to some of Senator Stevens' questions and your questions. I think that might be a very important part of this hearing, to get to the meat of everything.

Let me start off by saying, if I could, for the record that I am Deputy Assistant Secretary of State for Oceans and Fisheries, responsible for international fishery affairs. Today I will be discussing very briefly in my condensed testimony international fishery issues and, in particular, the driftnet issue. Again, I hope we can have a good dialogue in the question and answer period.

It has been a full decade since the Magnuson Act extended our jurisdiction over fisheries to 200 miles. The problems we faced 10 years ago are not the problems we face today. The Magnuson Act has effectively brought foreign fishing in our waters under control and, I believe, established the basis for domestic management of our fisheries.

In 1977 foreign fishing fleets in our zone harvested approximately 2.1 million metric tons of fish. We believe, and Commerce would provide these figures more thoroughly, that it is unlikely allocations in our zone in 1987 will exceed 200,000 metric tons. That includes both the east and the west coast. So I think you can see that foreign fishing in our zone has in fact declined by about 90 percent in the past decade.

In recognition of this situation, we have been looking to extend our GIFAs, our governing international fishery agreements, the framework agreements that allow foreign countries to fish in our waters. We have been looking at extending those agreements as opposed to renegotiating them. We presently are operating under 13 governing international fishery agreements.

So what problems do we face today? We are facing problems that lie not so much in our own zone, because as I said before the foreign fishing just is not there anymore, but we are dealing with problems that lie on the fringes and beyond our own zone.

I think these problems can be broken down into several categories. Let me run through them quickly. transboundary stocks; straddling stocks; anadromous stocks; highly migratory stocks; fisheries trade; and access to other countries' fisheries. Problems, I would submit to you, in these categories are every bit as difficult to resolve as those we faced in the past in our own zone.

I am submitting for the record a detailed overview of the Department's full activities on most of these international fishery issues. I am also submitting for the record today our comments, as I said earlier, on S. 62, a bill which addresses the impact of driftnet fisheries on the maritime environment in the North Pacific Ocean.

If I could, Mr. Chairman, in the next three or four minutes, let me highlight for you some of the areas that we are dealing with and problems that are confronting us today in this international fisheries arena.

Number one, transboundary stocks, or stocks that overlap our zone and the zones of others. These present significant problems to the north with Canada and to the South with Mexico. Examples include Georges Bank groundfish and king mackeral in the Gulf of Mexico. Because the actions of our neighbors with regard to these stocks can affect our efforts to manage them, we need to agree on conservation goals, to coordinate management efforts and to define an equitable basis for sharing harvest. We are attempting to do that.

With regard to a more controversial issue, straddling stocks—and I should for the record define to the best of my ability straddling stocks, those stocks that occur both within our EEZ and those that occur outside of our EEZ. It is important that fishing by other nations outside our zone not be allowed to defeat our conservation and management efforts within our own zone. These issues affect issues in the Bering Sea off Alaska as well as certainly those fisheries in the Northwest Atlantic.

A particular concern of Alaska are fish stocks in the international waters of the Central Bering Sea. We are attempting to obtain accurate information on harvest in this area from countries fishing there, and I do have some specific information if we are able to get to that during this hearing.

Regarding anadromous species, principally salmon, there has been significant U.S. interest and concern here both before and after the enactment of the Magnuson Act. I believe we are making strides in terms of salmon conservation and management. We see in the negotiation an implementation of the convention for the conservation of salmon in the North Atlantic Ocean and in the U.S.-Canadian Pacific Salmon Treaty as well as in the continuing progress resulting from the renegotiation of the annex to the international convention for the high seas fisheries of the North Pacific Ocean. I think we see progress in all of these areas.

Similarly, in the Pacific Northwest and in Southeastern Alaska, the conclusion of a Pacific Salmon Treaty in 1985 that my predecessor, Ted Kronmiller negotiated represents a singular achievement and a testament to the will of both countries to place long-term common interest ahead of short-term parochial views.

I should touch briefly on the—that was not five minutes, was it?

Senator KERRY. That was 10.

Obviously your dog upset your sense of time, also. Why not go ahead. I know you are getting——

Mr. WOLFE. It is the Tylenol 3, I think.

Senator KERRY. We will give you a little extra time.

Mr. WOLFE. I definitely have to get to the driftnets. Just give me about another minute or two if you would on that.

I will skip over the part on tuna. I think it is covered adequately in the testimony, but we have a couple of agreements that we have negotiated and one particular agreement, the South Pacific tuna treaty, we will be sending up for ratification.

I should touch on, also, our recent discussions in Moscow because that is of interest to many in the Pacific Northwest and certainly on the east coast also. I recently led a delegation to Moscow. Dr. Evans was with us. We explored possibilities with the Soviets. In fact, we just returned during the last day or two. We explored the possibility of access to the Soviet zone for king crab initially and other species in the future.

I am looking forward to coming up next week to brief the staff on our trip. Some of it we would like to do in closed session, some of it very briefly today. I will just say that the talks were exploratory in nature but, I think, very productive. I think we have a way to go, but I think we have opened up a door that may provide possibilities in the future for access to the Soviet zone.

Then I will just take my final seconds to discuss with you the driftnet issue and its impact on the marine environment. As I noted in my testimony before the hearing that I believe Senator Stevens shared in October 1985 on pelagic driftnets, we have been concerned with the problems. We continue to be concerned with the problems. I think we, the executive and legislative branches, have the same common goal, the same objective. We are just trying to get there together. We happen to have some difficulties on our side, but we are looking forward to continue working with you to resolve those differences.

First, there is the directed or incidental harvest of U.S. origin salmon which may occur both in the Japanese directed salmon fishery and the squid driftnet fisheries of Japan, Korea and Taiwan.

Second, there is the potential adverse environmental impacts associated with all of the driftnet fisheries, as Senator Stevens pointed out, due to the incidental harvest of marine mammals, seabirds and other marine resources with the loss of discarded gear.

Recently we negotiated and reached agreement with the Japanese on Japanese interception of U.S. origin salmon. It was a controversial agreement. There are gentlemen and ladies in the audience that did not support this. Some did support it. I will just say it is the best deal we could have gotten at the time. It was a first step, and I think that it will significantly reduce the amount of Salmon interception driftnets deployed in the North Pacific if there is a time and area phaseout of the Japanese in certain areas in the Pacific.

We are meeting now, have been meeting and consulting with the staff of the Committee, with Taiwan, with Korea and the Japanese regarding the driftnet problem. We have been working towards monitoring and enforcement mechanisms. Much of this I would

like to discuss in terms of questions and answers or I can review it in my statement now.

I would just say that the goal of these talks has been to reach agreement on cooperative monitoring and research programs for these fisheries. These driftnet negotiations are designed to address the problems which have been encountered in the past principally with regard to lack of scientific data on the incidental harvest of marine mammals, seabirds and other living marine resources in these fisheries.

I could go on, Mr. Chairman, but I am quite certain my time has run out. I would be happy to respond to any questions or clarify anything, and I apologize for rushing through today.

[The statement follows:]

STATEMENT OF AMBASSADOR EDWARD E. WOLFE, JR., DEPUTY ASSISTANT SECRETARY OF STATE FOR OCEANS AND FISHERIES AFFAIRS, DEPARTMENT OF STATE

Mr. Chairman and members of the Committee on Commerce, Science and Transportation, I am delighted to be here today to review the status of our international fishery relations and in particular to discuss the driftnet issue. It is now a full decade since the Magnuson Act extended our jurisdiction over fisheries to 200 nautical miles. The problems we faced ten year ago are not the problems we face today.

The Magnuson Act effectively brought foreign fishing under control and established the basis for domestic management of our fisheries. In 1977, foreign fleets harvested 2.1 million tons of fish in our zone. Thus far this year, foreign allocations off Alaska amount to less than 50,000 tons, and off the East cost, less than 35,000 tons. It is unlikely that allocations in our zone in all of 1987 will exceed 200,000 tons. Foreign fishing thus has declined by over 90 percent in the past decade. In recognition of this change, we have been working to extend current governing international fishery agreements for relatively short periods rather than to renegotiate them on longer-term basis. We have also recognized the fact that with dwindling TALFF available, the leverage which it provided in the past has dissapated and we must find new ways to cajole those with whom we have fisheries relationships.

The problems we face internationally today lie not so much in managing fisheries in our own EEZ as in dealing with activities on its fringes and beyond it. These issue can be discussed in several categories: (1) transboundary stocks, (2) straddling stocks, (3) anadromous stocks, (4) highly migratory stocks, (5) fisheries trade, and (6) access to other countries fisheries.

Problems in these categories are every bit as thorny and difficult to resolve as those we have faced in the past. Still, we have made significant progress in the past ten years, and I am confident that our efforts in the next decade will produce similar results.

I would like today to touch on specific problems in the categories mentioned and briefly explain how we are seeking to deal with them.

Transboundary stocks, or those that overlap our zone and the zones of others, present significant problems to the north with Canada and to the south with Mexico. Examples of transboundary stocks include Georges Bank groundfish, anchovy off Southern California, and king mackerel in the Gulf of Mexico. Because the actions of neighbors with regard to these stocks can affect our efforts to manage them, the need to agree on conservation goals, to coordinate management efforts and to find an equitable basis for sharing available harvests, is becoming increasingly apparent. At the same time, perception of these needs varies from fishery to fishery and between countries. For example, Canada has requested on several occasions that we seek ways to expand bilateral coordination of haddock management on Georges Bank. While we have indicated that we are willing to do so, we have not yet determined domestically how groundfish will be managed beyond September 30. It is thus difficult at present to give detailed consideration to bilateral coordination of management measures. Furthermore, we do not yet know whether we shall find ourselves closer to, or further away from, the approach to groundfish management taken by Canada.

In the case of anchovy with Mexico, the situation is nearly the reverse. We have long been interested in improving coordination of bilateral management measures for anchovy stocks. Thus far, however, Mexico has not shared our perception of the urgency for coordination.

In the case of king mackerel, it is generally believed that there is a relationship between kingfish stocks harvested off Mexico and those harvested off the United States in the Gulf of Mexico. While we have undertaken some preliminary research with Mexico and while the issue has been discussed in the context of MEXUS Gulf, much remains to be done.

The issue of coordinated management measures also arises in the context of sea turtles and the issue of Mexican utilization so-called TED's (turtle excluding devices, or trawl efficiency devices) for shrimp trawls. Fortunately, preliminary Mexican responses to this issue are encouraging. In this area, our perceptions of what is needed may be rather similar.

With regard to straddling stock, that is, those that occur both within our EEZ and beyond, it is important that fisheries outside the zone not be allowed to defeat our conservation and management efforts within it. There is particular concern in Alaska over harvests of fish stocks in the international waters of the central Bering Sea. We are attempting to obtain accurate information on harvests in this area from the countries fishing there. It is clear that detailed information is needed on these harvests and on the relationship between fish stocks in the central Bering Sea and those in the U.S. EEZ.

But problems of straddling stocks are not unique to the bountiful fisheries of Alaska nor even to the United States. In the Northwest Atlantic, Canada is deeply concerned with foreign fisheries on the nose and tail of the Grand Banks by members and non-members of the Northwest Atlantic Fisheries Organization. These fisheries risk undoing outside what Canada is doing inside its zone with respect to the management of many stocks.

The United States has not yet acceded to the NAFO Convention. Until recently, we have been more concerned with issues closer to home in the Gulf of Maine and on Georges Bank. But since October 1984, when U.S. fishermen lost a significant portion of Georges Bank as the result of the maritime boundary delimitation, a number of U.S. vessels have returned to what were once traditional U.S. fisheries in the NAFO Regulatory Area.

Thus far, NAFO has not come to grips with the issue of non-member fishing, other than to urge that such fishing cease. Non-members may be persuaded to join the Organization, but realistically, membership hold few attractions if non-members have no assurance that they will be able to share in NAFO quotas. This is a thorny problem, since current NAFO members are unlikely to be willing to see their quotas decrease to make room for new members. Still, a solution must be found if the Organization's conservation and management program is to achieve its desired ends.

Anadromus stocks, principally salmon, have been a source of deep and continuing concern, both before and after enactment of the Magnuson Act. This concern is rooted both in economics and biology. The salmon fisheries are enormously important to the Pacific Northwest as an economic resource and to the indiginous peoples of the area for their subsistence.

With respect to salmon, I believe we have made tremendous strides in the past decade. We see this in negotiation and implementation of the Convention for the Conservation of Salmon in the North Atlantic Ocean and of the U.S.-Canada Pacific Salmon Treaty. We see it too in the renegotiation of the Annex to the Convention for the High-Seas Fisheries of the North Pacific. Within the North Atlantic Salmon Conservation Organization, both Canada and Greenland have reduced their interceptions of U.S.-origin Atlantic salmon. While much work remains to be done, these reductions are an important complement to our domestic restoration efforts in rivers such as the Penobscot in Maine, the Merrimack in Massachusetts and New Hampshire, and the Connecticut in Connecticut, Massachusetts, New Hampshire and Vermont.

Similarly, in the Pacific Northwest and Southeast Alaska, conclusion of the Pacific Salmon Treaty in 1985 represents a singular achievement and a testament to the will of both countries to place long-term common interests ahead of short-term parochial views. Where for nearly 50 years both countries dealt with interception problems only on the Fraser River and its approaches, we have expanded our perception of salmon interception problems to encompass the area from Southeastern Alaska to Northern California and we have launched a common effort to solve them.

The Pacific Salmon Commission has moved beyond the start-up phase and is beginning to come to grips with specific interception issues as the initial fishery regimes contained in Annex 4 to the Treaty come up for renewal. In February 1986, the Commission agreed for the first time on a management regime for chum salmon. The next meeting in June 1987 will deal with arrangements for Canadian portions of the transboundary rivers in the Alaskan panhandle. While the Treaty by no means has resolved all of the interception problems facing the five species of Pa-

cific salmon, it has established agreed principles and a needed mechanism with which to continue our efforts to resolve them.

I should also mention here that the United States and Japan recently signed an agreement in April 1986, on Pacific salmon interceptions that provides for the phaseout of Japan's mothership fishery in the high seas area of the Bering Sea and a westward movement of the land-based fishery in the North Pacific. This agreement is discussed in detail later in this statement.

On a related matter, I would also note that the United States and Canada have embarked on negotiations dealing with the Yukon River. These negotiations were agreed to in the Pacific Salmon Treaty, but the problems of the Yukon are unique. Native Americans and others in Alaska have long depended on Yukon river salmon for their livelihood. They have witnessed with dismay high seas interceptions of Yukon stocks because of their affect on in-river conservation efforts. In recent years, Canada has begun certain salmon fisheries in its portion of the Yukon, and these fisheries also affect the conservation of Yukon salmon.

At this point, Mr. Chairman, I would like to go into some detail regarding another issue that is of considerable concern to the Committee and to the Department. This issue is the impact of driftnet fisheries on the marine environment of the North Pacific Ocean. I understand that the Committee has requested the Department's views on the specific provisions of S. 62, the proposed Driftnet Impact Monitoring, Assessment and Control Act of 1987, introduced by Senator Stevens and co-sponsored by Senators Murkowski and Danforth. I am appending our views on this legislation to my testimony for the record. However, I would like at this time to provide an overview of the Department's initiatives with respect to the driftnet problem.

As I noted at the hearing before this Committee and the National Ocean Policy Study in October 1985, we have long been concerned over the problems associated with driftnet fisheries, and we are committed to addressing the driftnet issue through bilateral and multilateral negotiations. Since that time, in close cooperation with the National Marine Fisheries Service, the Coast Guard and with substantial input from Congressional staffers, we have concluded an agreement with Japan on reducing high seas interceptions of U.S.-origin salmon, and we have initiated negotiations with all countries conducting squid driftnet fisheries in the North Pacific. While the international and technical aspects of the driftnet issue are complex, I believe that we can continue to make progress.

We have approached the driftnet problem with two concerns in mind. First, there is the incidental harvest of U.S. origin salmon in the Japanese directed salmon fishery and in the squid driftnet fisheries of Japan, Korea and Taiwan. Second, there are the potential adverse environmental problems associated with all the driftnet fisheries due to the entanglement of marine mammals, seabirds, and other living marine resources, in active, as well as lost or discarded fishing gear. Because of the importance of the driftnet problem I would like to go into some detail regarding the fisheries of the three countries involved.

The Japanese high seas salmon fishery, which is regulated by the International North Pacific Fisheries Commission, was restricted in 1978 from those areas of the North Pacific with the greatest concentration of North American origin salmon. However, new scientific evidence presented in 1984 indicated that this fishery continued to intercept significant quantities of U.S.-origin salmon, particularly salmon originating in Western Alaska. As a result, we initiated negotiations in June 1985 to reduce these interception levels. After eight rounds of difficult and at time highly emotional talks, we reached an agreement with Japan in March 1986 on new restrictions for the Japanese salmon fishery, including a phase-out of the mothership fishery in the central Bering Sea and a westward movement of the landbased fishery's eastern boundary. U.S. scientists estimate that these restrictions, which were subsequently incorporated into the INPFC Protocol, will result in a substantial reduction in interceptions of U.S.-origin salmon in this fishery.

The Japanese squid fishery, which was initiated in the late 1970s, uses gear similar to that used in the salmon fishery. Following U.S. expressions of concern over the potential interception of U.S.-origin salmon in this fishery, Japan adopted regulations in 1982 establishing a northern boundary designed to prevent the fishery from operating in waters which might contain salmon. U.S. scientists have stated that the potential for interceptions of U.S.-origin salmon is minimal if the fishery stays within its prescribed boundaries. However, U.S. Coast Guard surveillance flights detected a number of violations by Japanese vessels of the squid fishery's boundary from 1983-86. The Department expressed great concern over these violations to the Embassy of Japan on several occasions. In August of 1986, Japan agreed to dispatch two patrol vessels to monitor the squid driftnet fleet and to take punitive action against vessels found in violation of the squid fishery's boundary.

Another major issue of concern to U.S. interests has been the reported harvest of salmon by squid driftnet vessels from Taiwan. Through the American Institute in Taiwan, we expressed our concerns on this matter to the Coordination Council for North American Affairs (CCNAA), representing the authorities on Taiwan. In 1984, Taiwan reported that it had prohibited both the harvest and export of salmon, while Japan implemented regulations prohibiting the import of salmon from Tawian. Nonethelsss, the harvest and sale of salmon by Taiwan vessels appears to have continued, as evidenced most recently by the seizure of salmon in Tacoma, Washington, which allegedly originated in Taiwan.

Following discussions last year between AIT and CCNAA, Taiwan adopted new regulations, similar to those in effect for the Japanese squid fishery, designed to keep its squid fleet away from areas in which salmon may be harvested. These talks on the Taiwan squid driftnet fleet have continued this year with a view toward reaching agreement on additional measures for controlling the Taiwan squid fleet. Because of the serious concerns over this issue, the AIT has made clear that the current GIFA with the CCNAA, which expires July 1, 1987, will not be considered for extension unless an adequate agreement is reached on the driftnet issue.

Another pressing concern is the attempt to address the potential adverse impacts which the squid driftnet fishery may have on the marine environment. Because the squid fisheries have been in existence for only a few years, relatively little data has been collected on the specific effects these fisheries have on marine mammals, seabirds, and other marine organisms. Although the National Marine Fisheries Service has done an excellent job in conducting research on the squid fisheries, it appears that much more data is needed in order to assess accurately the impact of these fisheries on the marine environment. As a result, we have initiated talks with Korea and Japan regarding cooperative research and monitoring programs for the squid driftnet fishery which will provide this kind of information. The AIT has also initiated similar discussions with the CCNAA, representing the authorities on Taiwan.

In summary, in close cooperation with the NOAA, the Congress and the Coast Guard, we have responded to the driftnet issue in two ways. First, we have taken action to minimize the harvest of U.S.-origin salmon by driftnet vessels. Second, we have initiated negotiations with all countries conducting driftnet fisheries in order to increase the research and monitoring of these fleets so that we can accurately assess their impact on the marine environment. We anticipate that this approach will continue to produce progress on this important issue.

Turning again to the broad categories of issues I mentioned at the beginning of my testimony, I would note that highly migratory stocks, specifically tuna, have also been a major focus of our efforts. The conflict between the U.S. juridical position on tuna, as mandated by the Magnuson Act, and that held by other nations in whose waters U.S. tuna vessels operate, has led to vessel seizures, retaliatory embargoes and bitter feelings.

Recently, we have made great strides in negotiating multilateral tuna fishing access agreements. While consistent with our juridical position on tuna, these will go a long way toward securing a future for the U.S. tuna industry as well as putting the political and foreign policy problems associated with U.S. vessels fishing for tuna behind us.

In the Pacific, the United States and Four Central American States signed the Eastern Pacific Ocean Tuna Fishing Agreement in 1983. We currently lack two of the five ratifications needed to bring the agreement into force. I traveled to Central America this past February to focus attention on ratification of the EPOTFA. Based on my discussions, it appears that Panama will soon deposit its instrument of ratification and I am cautiously optimistic that we will obtain the additional ratifications as well.

Four weeks ago today, Assistant Secretary Negroponte and I signed the South Pacific Regional Fisheries Treaty for the United States in Port Moresby, Papua New Guinea. In addition to the United States, Pacific Island States signing the agreement were Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Papua New Guinea, Solomon Islands, Tuvalu and Western Samoa. Niue, Palau, Tonga and Vanuatu also participated in the negotiations leading to the treaty, but did not sign on April 2. We will continue to actively encourage them to sign the treaty in the near future. The treaty sets forth the terms and conditions which will apply to fishing to U.S. vessels in the region. It will enter force after ratification by the United States and ten of the signatory Pacific Island States. Three of these ten must be Papua New Guinea, Kiribati and the Federated States of Micronesia.

Under this treaty, the U.S. tuna industry will purchase annual regional licenses issued by the South Pacific Forum Fisheries Agency (FFA). These licenses will permit access to some ten million square miles of rich fishing water in the South Pacific Ocean. During the first year, the industry has guaranteed the purchase of at least 1.75 million dollars worth of licenses (35 licenses at 50,000 dollars per vessel). In addition, 250,000 dollars in annual technical assistance from the U.S. industry will help the Island states develop their own fishing industries.

Associated with the treaty is an agreement between the U.S. Government and the FFA which provides an annual assistance package of 10 million dollars for the Pacific Island States for five years. Nine million dollars of this assistance will be in the form of a cash transfer, while $1 million will be in the form of U.S. AID development projects.

The treaty is the product of over two years of intensive negotiations which began in September, 1985, in an effort to resolve the access problems encountered by U.S.-flag tuna vessels fishing in the region. As mandated by the Magnuson Fishery Conservation and Management Act, the U.S. neither claims nor recognizes jurisdiction over highly migratory species of tuna beyond 12 natutical miles from the coast. However, all Pacific Island states claim jurisdiction over tuna to 200 nautical miles. This jurisdictional dispute resulted in the seizure of two U.S. tuna vessels by Western Pacific Nations in 1982 and 1984. Both incidents triggered retaliatory embargoes by the United States, pursuant to the provisions of the Magnuson Act, on imports of tuna products from the seizing nations. To resolve these problems, we began to negotiate a regional licensing agreement with sixteen Pacific Island States. After negotiations began, the region took on increased importance when the Soviet Union successfully negotiated a fisheries access agreement with the Island Nation of Kiribati and began to make overtures to other countries in the region.

We believe the agreement signed in Port Moresby is a very good one from the perspective of U.S. diplomacy as well as that of the U.S. fishing industry and fishermen involved in the region.

Still, we are aware that U.S. tuna policy remains controversial both overseas and at home. In particular, we are conscious that the efforts of the Regional Fishery Management Councils to come to grips with the management of swordfish and other large pelagics have been complicated by the need to avoid measures that deny other nations a reasonable opportunity to fish for tuna in our waters.

I should note at this point that the Department has recently assumed new responsibilities with regard to administration of the Fishermen's Guaranty Fund established by Section 7 of the Fishermen's Protective Act (FPA). This section authorizes the Federal government to reimburse actual costs and certain consequential losses incurred by the owners of U.S. vessels that are seized by foreign governments for jurisdictional claims not recognized by the United States. Public Law 99-659 transferred administration of the fund from the Department of Commerce to the Department of State, effective October 1, 1986. We believe that the transition has been smooth and that we will be in a position to make decisions on most longstanding claims in the very near future.

As we have moved to develop our fisheries over the past decade, foreign trade in fishery products have grown in significance. Foreign markets represent both important outlets for our increasing production and a means of countering the widening disparity between our imports and exports of fishery products.

Immediately after enactment of the Magnuson Act, allocations of fish in our zone to foreign nations were largely governed by the "traditional fisheries" criterion. That is, allocations were granted based largely on whether and to what extent a nation had fished traditionally off U.S. coasts. Our allocations policy changed quickly, however, as we began to promote U.S. fishery development goals through the leverage of allocations. The American Fisheries Promotion Act of 1980 enumerated specific criteria to be used in making allocation decisions and sought to enlist foreign assistance in promoting trade in U.S. fisheries products. This combination of U.S. law and U.S. policy has come to be known as "fish and chips."

While we have succeeded in promoting the development of U.S. fisheries through the assistance of other countries, the "fish and chips" approach has itself experienced some criticism in recent years, both domestically and abroad. Domestically, some have argued that U.S. fishery products are valuable in themselves and do not require subsidies in the form of allocations to foreigh nations in order to find markets. In addition, some contend that fish caught by foreigners in our zone compete in the marketplace with fish produced domestically.

Abroad, some have criticized the "fish and chips" approach, arguing that it should work in both directions. They contend that, if the United States wishes to continue

to receive access to foreign markets, we must be willing to provide allocations for directed foreign fisheries in our zone.

We have vigorously rejected this argument on both legal and policy grounds. Under customary international law, foreign nations may be given allocations in the zone of the coastal state only to the extent that the coastal state is unable to utilize the resources itself. We know of no basis in international law that would enable distant water fishing nations to insist on allocations as a condition of access to their markets. Moreover, we believe very firmly that the General Agreement on tariffs and Trade prohibits member nations from restricting access to their markets on such grounds.

At the Uruguay round last fall, Commerce Secretary Baldrige capsulized the U.S. view when he said that allocations of fish in the zone of the coastal state are a privilege, not a right. As we continue to develop the fisheries in our zone and thereby reduce the level of allocations available to foreign nations, I would add only that allocations are an evanescent privilege.

We have had some difficulties recently with regard to allocations, particularly in the East coast squid fisheries. The European Economic Community and some of its member states have challenged whether, in fact, we are able fully to utilize our squid resources.

The annual determinations of U.S. capacity and intent in these fisheries require careful and often difficult judgments. These determinations are made by the Department of Commerce based on recommendations from the Regional Fishery Management Councils. The Department of State makes allocations, in consultation with the Department of Commerce, only if and when total allowable levels of foreign fishing (TALFF) have been established.

We have informed the European Economic Community that U.S. authorities will review the situation in the squid fisheries later this year once the U.S. industry has completed a substantial portion of its inshore fishery, probably around late July. If additional squid is not needed by the U.S. industry, we understand that it is possible that some TALFF may be established. I would defer, however, to Dr. Evans on this point since our responsibility under the Magnuson Act is limited, as I have mentioned, to making allocation decisions once the Commerce Department has made TALFF available.

Further with regard to trade issues, the Administration is presently engaged in the so-called "free-trade" talks with Canada. All issues in the bilateral trade relationship remain on the table, including fisheries trade issues. Beyond this, however, I would defer to Ambassador Murphy of the Office of the U.S. Trade Representative regarding specifics of the discussions to date.

The United States and Japan recently reached agreement on eliminating the restrictive effects of Japan's pollock and herring import quotas. The Department of Commerce estimates that this agreement will result in $35 million in new U.S. fisheries sales to Japan this year, rising to $300–$400 million in the early 1990's as the U.S. industry develops its market opportunities in Japan.

Also, with regard to trade, I think it is important to note the tremendous changes now being wrought in the marketplace for some species with the advent of large commercial aquaculture operations. The in-roads being made by aquaculture are perhaps most pronounced in the salmon and shrimp fisheries, but other species surely will follow. For example, in a good year the total North Atlantic salmon harvest from wild stocks may reach 10,000 metric tons. But salmon farmers in Norway are already producing well over three times this amount. Atlantic salmon farms are also active in Scotland and Ireland, and even in Chile. Similar developments are taking place in the shrimp fishery where it has been estimated that production of cultured shrimp from Latin America and Asia could total about 580 million pounds by 1990. These developments promise to revolutionize traditional approaches to production and marketing, with potentially profound impacts on our fishing industry and our market for fishery products. Coming to grips with these developments will be a major challenge for the remainder of this decade and throughout the next.

At this point I would like to turn to the final category of issues I previously described. That category is access for U.S. fishermen to the zones of other countries. U.S. tuna and shrimp fleets have long been vitally concerned with the need for fishing access in the zones of other nations. The advent of the 200-mile zones has generated concern with access issues among other segments of our industry as well. For example, New England fishermen, who lost nearly one-sixth of Georges Bank as the result of the decision of the International Court of Justice in the maritime boundary adjudication in October 1984, have repeatedly expressed interest in access to the Canadian zone.

Another such issue which has been the focus of much of our attention recently involves fisheries off the coasts of the Sovet Union, which are of considerable interest to U.S. crab and groundfish fishermen. Following extensive discussions with U.S. industry representatives on this issue, I led a U.S. delegation to Moscow from April 20–22 for exploratory talks with Soviet officials on potential cooperative fishing arrangements in the Soviet EEZ. Although preliminary in nature, the talks were productive and resulted in a full exchange of views on fisheries access issues. The Moscow talks also provided an opportunity for both sides to discuss ways of improving the dialogue between scientists and industry representatives on fisheries issues of mutual concern. In order to continue the dialogue, we have requested that the Soviets consider participating in a U.S.-Soviet industry meeting in the United States in early May to discuss the technical aspects of possible cooperative fishing arrangements in the Soviet EEZ. We hope this will result in access by U.S. fishermen to Soviet fisheries resources.

U.S. fishermen are also interested in access to other nations fisheries in Mexico, Colombia, Franch Guiana, the Dominican Republic, the British Virgin Islands, other Caribbean Islands, and off the west coast of Africa.

Access to the zones of other nations is important to a variety of U.S. fishing interests, but access is a particularly difficult goal to achieve in the post 200-mile era.

By and large, other nations are as jealous of the fishery resources off their coasts as we are of the resources off our own. Although access is by no means impossible to negotiate, it inevitably comes at a price. Sometimes, this price involves a sustained commitment to working with counterparts in the country involved toward a variety of development goals. Ironically, achieving these development goals often may spell the end of access opportunities just as we are witnessing with the foreign fishing in the U.S. EEZ.

We will continue to seek opportunities for our fishing industry wherever possible in the zones of other nations. We must be aware, however, of the difficulties involved and the potential costs. In some instances, these difficulties and costs may be worth the effort—in others they may not.

Mr. Chairman, this concludes my formal statement for the record. As I mentioned, I have appended the Department's specific comments on S. 62.

[The following information was subsequently received for the record:]

QUESTIONS OF THE CHAIRMAN AND THE ANSWERS THERETO

QUESTION: There are a number of transboundary stocks in the Gulf of Mexico, e.g. anchovies, mackerel, red drum that seem to call for cooperative conservation and management efforts between the U.S. and Mexico. What efforts have you made to bring about such cooperative efforts?

ANSWER: Gulf of Mexico transboundary stocks present important, yet sensitive and difficult questions with respect to possible conflicting management objectives, procedures and priorities. It has never been made clear to the State Department what the desires of U.S. interests managing these fish resources really are. This is an important consideration, as cooperative management could lead to Mexican interests influencing U.S. management and fishing activities. Before entering into discussions on cooperative management of transboundary fish stocks, we need a sound scientific understanding of these stocks, which in many cases is now lacking. We are pleased that efforts at scientific exchange with the Mexicans are expanding with respect to both Gulf of Mexico and Pacific Ocean stocks, and we hope they will continue.

QUESTION: As part of their argument against requiring U.S. shrimp vessels to use turtle excluder devices (TEDs), some individuals contend that (a) Mexico should also require TEDs for its shrimp boats, and (b) not enough is being done by Mexico to protect essential sea turtle nesting beaches from human and animal predation. Do you believe these assertions have merit, and what have you done or do you plan to do to address such concerns?

What do you think about the proposal to ban imports of shrimp from countries whose shrimp vessels do not carry out endangered turtle protection measures at least as effective as those imposed on U.S. shrimp vessels?

ANSWER: I believe my answer to Senator Breaux's question is largely applicable here. Thus far, all indications are that the Government of Mexico is acting in a very responsible manner to afford protection to endangered sea turtles, both on the Rancho Nuevo nesting beach and in exploring the use of turtle excluder devices.

As you are aware, the National Marine Fisheries Service has found that there are distinct differences in the incidence of turtle by-catch in shrimp trawls in the Atlantic Ocean and the Gulf of Mexico. Presumably, the degree to which turtles are caught in shrimp trawls in other waters of the world also differs. Until we understand whether shrimping operations of other nations entail significant incidental catch of sea turtles, we would not support banning shrimp imports from those nations on the basis that they do not have turtle protection measures comparable to those imposed on U.S. shrimp vessels.

QUESTIONS SUBMITTED TO EDWARD WOLFE FOR THE RECORD
BY SENATOR JOHN KERRY
SENATE COMMERCE COMMITTEE HEARING
ON MARINE FISHERIES OVERSIGHT
APRIL 30, 1987

QUESTION: How would you describe the present state of U.S.-Canadian fishery relations?

ANSWER: Government-to-government relations are improving. Deputy Assistant Secretary Edward E. Wolfe is beginning a dialogue with Canadian officials on Atlantic matters, which may lead to discussions on U.S. membership in the Northwest Atlantic Fisheries Organization (NAFO). While we believe Canada can introduce additional management measures, the Canadian Government's substantial program to reduce fishing effort in the Atlantic salmon fisheries of the Maritime Provinces should begin to reduce Canada's interception of U.S. origin Atlantic salmon. The U.S. and Canada are cooperating in the North Atlantic Salmon Conservation Organization (NASCO) to achieve more effective conservation and management measures in the Convention area. Similarly, our relations with Canada in other fisheries commissions are satisfactory at this time. Our negotiations with Canada over salmon management on the Yukon River continue.

QUESTION: At a recent scientific meeting, Canadian fishery managers indicated that as much as 20,000 additional tons of redfish within the Canadian 200-mile zone, might be harvested each year. What negotiations would be required to provide U.S. fishermen access to that resource?

ANSWER: U.S. accession to the Northwest Atlantic Fisheries Organization (NAFO) might provide limited access to the Canadian 200-mile zone. Canada's current policy is not to make allocations of fish within its zone to nations which do not support Canada's conservative fishery management philosophy.

QUESTION: Do you feel that the Northwest Atlantic Fisheries Organization has provided effective management of the offshore fishery resources of the North Atlantic? Please explain.

ANSWER: The conservative fishery management objectives of the Northwest Atlantic Fisheries Organization (NAFO) could result in effective managment of the fishery resources in the Convention area. They have not yet been as effective as they could be, because many NAFO members overfish their assigned catch quotas, and because non-members (including the U.S.) fish, unregulated, in the NAFO regulatory area.

QUESTIONS SUBMITTED TO EDWARD WOLFE FOR THE RECORD
BY SENATOR JOHN BREAUX
SENATE COMMERCE COMMITTEE HEARING
ON MARINE FISHERIES OVERSIGHT
APRIL 30, 1987

QUESTION: The Kemp's Ridley turtle is largely the source of the TED situation because it is listed as "Endangered" under the Endangered Species Act. Since the Kemp's Ridley turtle only lays its eggs on a relatively small strip of beach in Mexico, and since this turtle is generally distributed throughout much of the area that is the focus of the extensive Mexican shrimp fishery, what formal efforts are being pursued by NMFS and the State Department to--

-- ensure that the reproduction of this endangered species is protected by the Mexican government, and

-- ensure that Mexican shrimp fishermen also accept their share of the responsibility to protect this species through TED use or other means?

ANSWER: The Mexican Government protects the beach at Rancho Nuevo, the remaining nesting site for the Kemp's Ridley turtle. We understand that this program has been very successful in protecting nesting female turtles and nests from egg harvesters.

Officials of the National Marine Fisheries Service of NOAA met with Mexican Ministry of Fisheries officials on June 24 - 26, 1987 to 1) brief Mexican officials on the status of draft TED regulations in the United States, and 2) to make arrangements for NMFS participation in model TED demonstrations scheduled for Tampico during the week of July 13 - 19.

During the June meetings, U.S. and Mexican officials agreed in principle on a workshop between U.S. and Mexican interests to draft a plan on turtle research and conservation. The workshop would also cover ongoing projects such as the turtle recovery stranding network and the Rancho Nuevo nesting beach project. The workshop would take place sometime in August or September, 1987 and would draw participants from the National Marine Fisheries Service, the Mexican Ministry of Fisheries, the U.S. Fish and Wildlife Service and the Texas Department of Parks and Wildlife. We are awaiting a final Mexican decision to hold this workshop.

QUESTION: The Pelly Act authorizes the President to embargo the importation of fishery products from a Nation whose nationals "directly or indirectly, are conducting fishery operations in a manner or under circumstances which diminish the effectiveness of an international fishery program".

-- CITES is such an international agreement designed to protect endangered species worldwide.

-- Mexico exports $300 million worth of shrimp to the U.S. each year.

If Mexico fails to adequately protect endangered sea turtles, is it the opinion of your agency that the provisions of the Pelly Act could or should be invoked?

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ANSWER: The Department of State finds it difficult to answer such a hypothetical question. We understand the endangered status of this species results from a number of factors, not all of which relate to fishing activities. We could not recommend invoking provisions of the Pelly Act without consideration of the actual efforts by the Mexican government to protect the turtles and the continuing factors contributing to their endangered status. Thus far, all indications are that the Government of Mexico is acting in a very responsible manner to afford protection to the Kemp's Ridley turtle.

QUESTION: If the Pelly Act cannot or should not be invoked, does your agency support a legislative amendment to the Endangered Species Act that would give similar authority to the President if Mexico or other Nations fail to achieve some appropriate level of endangered sea turtle protection?

ANSWER: The Department feels the provisions of the Pelly Act provide sufficient incentives for a foreign government to act responsibly in the conduct of their fishery operations as they impact on endangered species.

QUESTION: The Secretary of Commerce has imposed a rather conservative fishery management plan on the redfish fishery in the Gulf of Mexico with the promise to conduct an extensive multi-year research program to gather data which would ultimately allow the development of an informed fishery management plan. Because the Secretary's plan for redfish is so conservative - it completely bans all directed commercial harvest of redfish in federal waters - it is my understanding that a great deal of the U.S. demand for this product is now being supplied by Mexico. Since the Mexican redfish are likely to be of the same stock that contributes to the U.S. fishery, and since at least NMFS feels it is so important to stop directed commercial redfish harvest in federal waters, what formal action is your agency taking to ensure that Mexican fishermen do not "destroy" the American redfish fishery that we are taking such extreme actions to protect?

ANSWER: We understand it is not clear whether redfish stocks harvested in the U.S. waters of the Gulf of Mexico are of a shared or separate stock from those harvested in Mexican waters, and if there is some mixing of separate stocks, the degree of such mixing. Until there is better information on stock structure, we have no reason to believe that Mexican fishermen, operating in their own exclusive economic zone, are likely to "destroy" the American redfish fishery. As you are aware, we have no Governing International Fishery Agreement with Mexico, and their fishermen do not have access to our exclusive economic zone.

QUESTIONS OF SENATOR BROCK ADAMS AND THE ANSWERS

QUESTION: I understand that bilateral agreements are being negotiated with Japan, Korea and Taiwan at the present time. How are these negotiations progressing? Are you discussing any provisions which would be helpful in dealing with the driftnet problem?

ANSWER: All three bilateral agreements, the Governing International Fishery Agreements (GIFAs), have come up for consideration this year. Concurrent with our bilateral discussions on amending and extending these GIFAs, we have initiated driftnet talks with the countries involved (AIT has taken similar action with regard to CCNAA, representing the authorities on Taiwan). The following is the situation with regard to each country:

Japan: We are currently negotiating the amendment and extension of the GIFA with Japan. We have sent the Japanese our proposal to extend the GIFA by two years and to amend it to conform with changes in U.S. law. We expect to get a reply soon from the Japanese and hope to have the legislative process completed before the GIFA expires on December 31. We have also proposed to Japan that we conclude an agreement to improve monitoring and research programs for the Japanese high seas squid driftnet fishery. The goal of these talks is to establish programs to accurately assess the incidental take of anadromous species, marine mammals, seabirds, and other living marine resources in this fishery.

Korea: Agreement was reached in May on amending and extending the GIFA with Korea. An exchange of notes to this effect was transmitted to Congress on June 25 and is awaiting the mandatory sixty-day Congressional oversight period. We expect that the GIFA will become law by around October 15 at the conclusion of the oversight period. As with Japan, we have proposed a separate agreement regarding the monitoring and assessment of Korea's high seas driftnet fishery. Bilateral talks were held on this issue in Washington, D.C., from May 26-27. Because insufficient progress was made during those talks, we have scheduled a new round of negotiations for October.

Taiwan: The fishery agreement between AIT and CCNAA expired on July 1, 1987. During discussions held on the squid driftnet issue in February, the AIT made clear that it would be difficult to extend the agreement with CCNAA unless progress was made in resolving the problems related to the catch of salmon by the Taiwan squid driftnet fleet. AIT is currently waiting for a response from CCNAA regarding future discussions on the driftnet issue.

QUESTION: S.62 provides the Secretary with discretionary authority to deny fishing access to our 200-mile zone if an adequate agreement is not reached within 2 years. What is the likelihood of reaching such an agreement within 2 years for each of the three driftnet nations?

ANSWER: If is, of course, difficult to predict how long it will take to negotiate agreements on the driftnet issue. Because the squid fisheries are conducted entirely on the high seas, numerous new policy and legal questions regarding international rights and obligations pertain to such fisheries. However, given the previous record of cooperation with Japan and Korea on fisheries matters, we believe that there is a reasonable chance that driftnet agreements can be concluded within a year or two. Both countries have extensive ties with the U.S. industry and have an interest in resolving issues which could have an adverse impact on the overall fisheries relationship. In the case of the AIT/CCNAA agreement, it is unclear whether the lack of involvement by the Taiwan fishing industry in U.S. fisheries could be a factor in delaying the conclusion of an agreement.

QUESTION: Under what conditions would you anticipate application of the Pelly Amendment to this issue? In particular, what is the status of the investigation of 600,000 pounds of salmon caught by the Taiwanese driftnet fleet for illegal export to Japan?

ANSWER: Pelly Amendment certification is applied at the discretion of the Secretary of Commerce when he determines that the actions of a country and/or its nationals are diminishing the effectiveness of an international fisheries or wildlife conservation organization program. Accordingly, it is difficult for the Department of State to predict the circumstances under which the Secretary of Commerce would certify and recommend sanctions under the Pelly Amendment to the President against the given country. We are confident, however, that the Secretary of Commerce would consult with the Secretary of State regarding any actions that would lead to the certification of any country under the Pelly Amendment.

We understand that following the July 1986 seizure of nearly 600,000 pounds of salmon in Tacoma for violation of the Lacey Act, two Federal agents were sent to Singapore, Hong Kong, and Taiwan to document any violations committed in connection with the salmon that had been seized. As a result of these investigations, the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) sought forfeiture of the salmon in District Court. In addition, NOAA acted to assess civil penalties against the U.S. importer involved in the case. The Tacoma case may involve lengthy litigation and we defer to the NOAA regarding its status.

QUESTION: You mention loss of leverage on foreign nations stemming from dwindling TALFF. You also point out the need for new approaches to issues like international conservation. What new approaches has the State Department considered?

ANSWER: In my testimony for the April 30 hearings, I outlined a number of initiatives we have taken with regard to international conservation. These issues include the management of groundfish resources in George's Bank, bilateral management measures with Mexico regarding anchovy stocks, the exchange of data on fisheries harvests in the international waters of the Bering Sea, U.S. fisheries in the Northwest Atlantic Fisheries Organization (NAFO) regulatory area, cooperation with the Soviet Union on fisheries issues of mutual interest, and the protection of U.S.-origin salmon on the high seas or in other countries' 200-mile zones.

Since April 30 we have taken action with regard to several of these issues. We will be meeting with U.S. fishing representatives and Canadian officials in July regarding U.S. fisheries in the NAFO area and in October regarding the conservation of Yukon River salmon stocks. As noted previously, the driftnet talks with Japan and Korea are proceeding and bilateral negotiations with those countries will be continued in the late summer and early fall. In addition, the talks with the Soviet Union on possible fisheries access to the Soviet EEZ and on cooperation in fisheries issues of mutual concern will resume in Washington, D.C, from August 26-28.

Senator KERRY. We appreciate that. I think we do have the full testimony, and we appreciate the detail which you put into that. I think it would be important to try to get to some questions, particularly with the other panels.

We are going to operate under a 10-minute rule, and we will just go back and forth if we both exhaust our times, and I know there are a number of other Senators who are coming at different times.

I would like to get just a little bit parochial, if I can, for a few minutes before we go back to some of the larger issues, Dr. Evans. I would like to know why the administration is proposing to close the National Marine Fisheries Service Seafood Laboratory in Gloucester, MA, particularly at a time when it appears as though there is so much important work yet to be done?

For example, the lab is currently researching ways to process the fish from large, underutilized northeast mackerel stock into a more tasteful and longer shelf life product for consumers. If you close the lab, is that kind of work going to suddenly stop? There is other work being done there, also. What is the rationale?

Dr. EVANS. Well, the rationale, of course, is fiscal, as a lot of these things are in times of tight budgets and everybody trying to cut back. We have looked very closely at the nature of the programs going on there. A lot of the research that you just mentioned, for instance, in terms of mackerel, other kinds of resources and shelf life, has already been done, for example in Poland in cooperative programs with the United States.

Some of those questions have been answered. We feel that with the Charleston laboratory has a good capability. We can shift some of that responsibility over there, that many of the programs that we had have been duplications of efforts with things going on within the academic community.

Senator KERRY. Let me understand that, if I can interrupt you for a minute. You say you are going to shift some of that to the Charleston Laboratory?

Dr. EVANS. Yes, sir. Some of the work will be shifted there.

Senator KERRY. It is my understanding that if the Charleston Laboratory is reduced as it is proposed to be reduced that they are going to have little more than enough money to literally pay the light bills and rent. I do not see how they are going to undertake more work. I think they are going to be shutting down, as I understand it.

Dr. EVANS. Well, that was not my understanding sir.

Senator KERRY. They are being cut, are they not?

Dr. EVANS. Yes, they are being cut, as are all of the laboratories being cut back.

Senator KERRY. If they are being cut, how do you shift what is being done in Gloucester to them?

Dr. EVANS. By knocking out some of the lower priority activities going on at Charleston and moving some of the higher priority activities that are going on at Gloucester.

Senator KERRY. Can you be specific as to what the lower priority items are at Charleston?

Dr. EVANS. For instance, shelf life work, for one; some of the fish oil work which is being done at Charleston already; some of the work that is being done on looking at health hazards and a number

of other things, bacterial content in fish. Those are important programs. Some of those programs would be moved into another laboratory setting.

I know it is not an acceptable thing in terms of people. We do not like to cut down on our laboratory capabilities, but we do have a number of facilities that have been in existence for a long time. The quality of the laboratories has shifted. We are trying to make use of the best and the newest facilities that we have.

Senator KERRY. Are you going to continue the program to prepare purified fish oil as a test material for research on the benefits of fish oil in diet that is currently being conducted at Charleston?

Dr. EVANS. Yes, sir.

Senator KERRY. That will continue?

Dr. EVANS. That program is continuing and will continue and possibly even expand.

Senator KERRY. Will you continue work on the product development and edibility testing regarding herring, sardine and other coastal species from the Gulf of Mexico?

Dr. EVANS. We are hoping that some of those programs will be picked up by industry as a part of some of their initiatives. A lot of the preliminary work has already been done, and one of the things, as you are well aware of, the administration's policy, where we have taken it to a certain level, we are hoping that industry will now come in and pick up and develop some of these a little bit further.

Senator KERRY. Did I understand you correctly to say that part of this would be done in joint venture with Poland?

Dr. EVANS. We have had a cooperative research program with Poland for many, many years, especially in Woods Hole, especially in the mackerel work. In fact, some of the discussions that Ambassador Wolfe and I had in Poland were talking about expanding the joint ventures and the equity joint venture possibilities with Poland not only in the area of mackerel but also in the area of herring.

Senator KERRY. Is it unfair for me, then, to make a characterization that says Gloucester jobs are being lost for Polish employment?

Dr. EVANS. I think that would be unfair, yes, sir.

Senator KERRY. Will money be going from the Gloucester lab to this joint effort?

Dr. EVANS. No, sir. In fact, actually what we are hoping to do is to get the cash flow going in the other direction in terms of having Poland actually buy mackerel fillets and mackerel in the round and actually provide a market for our fishermen in the Northeast.

Senator KERRY. Now, the funding also for the regional fishery management councils, I gather, is being proposed to be cut from $7.7 million down to $3.7 million, about a 52-percent reduction.

Dr. EVANS. To approximately $4 million, yes, sir.

Senator KERRY. Which is a 52-percent reduction in one year. Does this not really prevent NMFS from carrying out its basic responsibility of managing the marine fisheries of the country? I fail to see how a 52-percent reduction does not cripple their ability to do what they are set out to do.

Dr. EVANS. I think it forces us into a position of shifting some priorities in some areas. Most of the fisheries management plans that we need right now have been developed.

In addition to that, we are in the process of rewriting the regulations, operating regulations, to try to make the councils more efficient so that they can operate, the same as all of us are having to operate, on tighter budgets.

In addition to developing some of those programs, we have some plans for going into framework plans which will have considerably fewer amendments to them. The paperwork last year alone in publishing changes in the regulations recommended by the councils, just to have those recommended changes printed up cost $250,000. We feel that some rather substantial cuts can be made in those areas.

Senator KERRY. Since you took over as head of the National Marine Fishery Service, you have increasingly emphasized, and your testimony did so, the ecosystem approach to managing and conserving.

How does that differ from the past approach specifically?

Dr. EVANS. We have been doing species-by-species approaches, doing standard estimates of stock by dragging nets through the water and looking at egg and larval count information, and from that trying to come up with predictions of stocks. In many cases we have not taken into account that, for instance, in your area in New England, we have a very good and growing mackerel resource, but the groundfish resource has gone down. The herring resource is suffering, but you are literally up to your ears in sand eels in the northeast.

There are some reasons for this, and the reasons are that you have a predator-prey system, situations where the groundfish stocks have been reduced down to a particular point of where they were no longer an effective predator upon sand eels. The sand eels then got the upper hand, and they were able to eat herring larvae. That pushed the herring down to a slight amount. The mackerel stocks which feed on some of those began to grow.

In the past, there has been a tendency in the United States, at least with the National Marine Fisheries Service, to not utilize all of that information and some of the archival information that we have had in the past. So what we are recommending is not something new. A holistic or ecosystem approach to managing fisheries stocks is something that has been done by some of our major competitors in the fishing business for 15 to 20 years, sir.

Senator KERRY. I understand that, and I wanted to have that definition on the record because it seems to me clear that to implement that kind of approach, which I think is one that deserves support, you require more money, not less.

Dr. EVANS. It would appear that way. Actually, for the information that we need in terms of modeling, there has been a reluctance on our part in the past of utilizing this information to develop models from which we can actually start making predictions on some of this.

A lot of the information that we need in terms of the effects that a lot of the fisheries have, especially in the Gulf Stream which is extremely dynamic, already exists. So it is a matter of utilizing a

lot of the data that we had before and working, in this case with NOAA as one unit and utilizing some of the information that we have from some of our sister agencies rather than just the National Marine Fisheries Service alone.

Senator KERRY. We will have to come back to that when we get some more time.

Senator Stevens.

Senator STEVENS. Thank you very much. First, Mr. Chairman, I think we ought to commend Ambassador Wolfe on the recent treaty that he took part in the negotiation of along with Ambassador Negroporte. The South Pacific Regional Fisheries Treaty dealing with tuna is a real accomplishment. I have not seen much in terms of giving you credit for what you have done, but I do think that deserves mention on this record.

Let me go first to the Japanese and the Soviets. It is my understanding that the Japanese have now agreed that the Soviets can have observers on their salmon fleets, and that is part of the arrangement giving the Japanese access to the Soviets' salmon area within their 200 mile limit.

We have not been able to achieve a similar arrangement with the Japanese despite the fact that our relationship with the Japanese is much larger in the area of fisheries.

Can you give us any reason why that is the situation?

Mr. WOLFE. If I might respond, Senator Stevens. If I understand your question correctly or to make sure that I understand it correctly, you are talking about the Soviet/Japanese observer arrangement, the arrangement outside of the Soviet EEZ. Is that correct?

Senator STEVENS. I understand it is both.

Mr. WOLFE. Inside and outside.

Senator Stevens: They have observers that are allowed to—the Soviets are now observing the total Japanese driftnet fleet and the mother ship fleet in dealing with salmon as part of the arrangement of letting the Japanese in. Am I wrong?

Mr. WOLFE. I am not sure about the second part. The first part, there is an arrangement. Regarding the Soviet/Japanese arrangement, they do place observers on the Japanese vessels.

Senator KERRY. Let me just interrupt my friend for one minute here to say that before you arrived I made a comment regarding a situation which is a little ticklish here with respect to ex parte proceedings that Dr. Evans is involved in regarding the administrative judge and hearings on this issue, on the driftnet issue.

So what I thought we would do, in order to make sure that we do not run into any potential conflicts for future accusations as such, is ask Dr. Evans any and all questions regarding driftnets now and end his testimony and then excuse him, and then we can ask Mr. Wolfe his separately so that there is no potential problem.

I think that satisfies your needs; is that correct, Dr. Evans?

Dr. EVANS. Thank you very much, Mr. Chairman. Yes, that is correct.

Mr. WOLFE. Senator Kerry, if you and Senator Stevens would agree, I would like to close the loop on that question and respond to that.

Senator KERRY. I have no problem with that. Before we went too far, I wanted to make sure that we——

Mr. WOLFE. It would not impact on the ex parte proceedings.

Senator KERRY. Go right ahead.

Mr. WOLFE. With regard to the Soviet/Japanese arrangement, this has been and is a very sensitive issue with the Japanese. They have asked us for confidentiality on this particular arrangement. I would be happy to sit down with either of you two gentlemen or your staff and discuss what we know about that arrangement. Again, we have received a request from the Japanese to keep this confidential.

Senator STEVENS. All right. I understand that, and I think that that is a very difficult problem for us. I do not think we have to get into the area any further than that.

If we can have the information that you have available, I think that is the main thing, that we get the information that you have available concerning the extent to which the Japanese have permitted the Soviets to have observers.

Mr. WOLFE. I will assure you that we will contact the staff immediately after the hearing.

Senator STEVENS. Dr. Evans, we have information that 800,000 birds are killed each year by the driftnet fleets. It is a difficult problem for us to understand, and Japan claims that there is a treaty that protects their operations.

Now, I understand the problem that you have with regard to the administrative law judge, but I will tell you frankly that I do not think we ought to be intimidated by administrative law judges. There are about 6,000 of them around the country, and if they could stop our inquiries just by deciding to hold a hearing, it would not be very conducive to attacking the problems on a national basis which affect substantial resources like our migratory bird population and our fisheries and particularly the great resources of the North Pacific.

Let me first ask you this. Have you discussed this problem of these driftnets and their impact on our birds with the Japanese?

Dr. EVANS. Senator Stevens, no; I have not discussed it directly with the Japanese. We have addressed the marine mammal issues.

I would like to make one comment which I think goes before the ex parte portion of the issue. During my confirmation hearing as Chairman of the Marine Mammal Commission, I made some statements as to my personal feelings and personal experiences with driftnets. I have not changed my mind on any of those, and those statements that I made in that hearing stand.

I think that if you check that testimony, you will find that I made some fairly strong statements in regard to the incidental take of both birds and mammals.

Senator STEVENS. I remember those, and what concerns me is that we have had talks with the Japanese in INPFC and other areas, and I would think that there would have been some discussion concerning the impact of these nets as far as the birds that we thought were protected by the Migratory Bird Treaty Act and also by the Marine Mammal Protection Act.

The whole concept of the protection regime that we have as far as our resources which certainly applies to the North Pacific seems to not have been discussed with the Japanese.

Dr. EVANS. I do not have any specific information on this and I certainly will have after this hearing. I would hope that my colleagues in the Fish and Wildlife Service who should have a very serious concern about birds, marine birds in particular, and who should have been addressing this issue, would have some information.

In fact, if I remember back to your hearing in 1985, one of the people who testified at that time was representing the Fish and Wildlife Service, and they did show some concern for this issue.

I think it raises an interesting point, in terms of the fact that as the Chairman mentioned, we are concerned. We at the National Marine Fisheries Service are concerned, and we have some difficulties in looking at the system in isolation. These are very complex ecosystems made up of individual cogs. Marine birds represent one of those cogs, but under the Marine Mammal Protection Act and under the charters that we have with the National Marine Fisheries Service, birds are sort of set-aside.

Now, whether or not that is a problem that can be addressed under some other discussion or some other hearing, I really do not know, but I think it is an important issue, sir.

Senator STEVENS. I think we should listen to the Chairman in his desire to get Dr. Evans' questions out of the way, and we can get back to you, Mr. Wolfe. I appreciate what the Chairman is trying to do to protect that record, although I do not have that much confidence in administrative hearings.

Senator KERRY. We are just going to enhance what little confidence you have.

Senator STEVENS. It is your intent to let Dr. Evans go after this round; right?

Senator KERRY. Yes.

Senator STEVENS. Let me ask you this. You do not like the net bounty system in my bill. Have you any other way to get those nets in?

Dr. EVANS. I think at the present time there has been some discussion about seeing whether or not a voluntary system and an educational system will work. I do not think we have really given these ideas much of an opportunity.

Senator STEVENS. I understand that for the new nets, those that are going to be lost from now on. Education might help us prevent some of those nets from being lost, but if my information is correct, there is a substantial number of nets out there already. Those are the nets that are fouling gear. Those are the nets that are killing birds. Those are the ghost nets that are killing salmon, marine mammals, groundfish, the whole marine resource base of the North Pacific.

Now, how are we going to get them in unless we give someone a bounty or do something else? I would be willing to have any suggestions you have. It costs a tremendous amount for a vessel to haul in one of those nets. I have had several of them hauled in by Alaskan fishermen who have told me the time it took them and the risk to their gear to do it.

Now, what else other than a bounty will bring that about, taking that risk, assuming that there is a risk to bringing in those nets?

Dr. EVANS. I think that that is an excellent question, and what I would like to do is to have my staff look very closely at that and come up with possibly some alternatives to the objection that we have on the bounty system. I think we can do that in a fairly short turnaround.

[The following information was subsequently received for the record:]

The net bounty system is both a creative and constructive approach in addressing problems associated with lost or discarded monofilament driftnet netting. We believe, however, that there are several problems associated with the implementation of such a system. These include prices to be paid, qualifying sizes, types of gear, and the possibility of overachievers retrieving non-lost gear. Costs involved could be quite high in that they cover not only the bounty, but the cost associated with the disposal of the gear when returned to a shore-based disposal facility. One alternative to the bounty system could be an industry operated recycling system (station) which would buy retrieved fishing gear from fishermen and then reprocess the gear. Such a system would encourage the recovery and retention of derelict fishing gear encountered at sea as well as serve as an incentive for not discarding gear or remnants into the ocean.

Recycling often is mentioned as a suitable means for handling the plastic waste problem. There apparently are several such systems in operation in Europe that are subsidized by certain tax schemes to make them functional. A recycling business in Taiwan, operating apparently without subsidy is remanufacturing waste monofilament gillnet material into shopping bags, etc. Realizing the potential for recycling, a contract will be let in fiscal year 1987 by our Marine Entanglement Research Program (MERP) at the Northwest and Alaska Fisheries Center in Seattle, to evaluate the practicality of recycling systems and identify factors critical to the sytem's success or failure. When this study is completed we should have a much better fix on the real potential for recycling systems. The study might also come up with other alternatives.

Senator STEVENS. One last question, and I appreciate the Chairman's——

Senator KERRY. You go ahead and take another round now, if you want, or use the time you need.

Senator STEVENS. I do not want to belabor it. The only other question would be about the annual report.

I note that you oppose the provisions of the bill that would require an annual report based upon information that the bill specifically requests you seek from foreign governments.

Can you explain why you would be opposed to giving us a report based on that information which you are asked to acquire from foreign governments? We cannot acquire it. The fishing agencies cannot acquire it on the state level, nor can the regional council. It can only be done by the Federal government.

Now why should you not acquire that information, and why should you not give is to us if you do acquire it?

Dr. EVANS. Let me respond, Senator Stevens, in this way, and this is not a cop-out in any sense. The decisions that were made for that were done within the last two weeks, and I have not had an opportunity to discuss it with my staff. I would like to have the option to prepare a detailed response, because I think it deserves a detailed response to that particular question by my staff and submit it for the record, if you would, sir.

[The following information was subseqently received for the record:]

We oppose the requirement for requesting information from foreign governments on the nature, extent, and impact upon marine living resources of all driftnet fisheries because we do not believe that effort would be productive. Research conducted

by foreign governments is not always available on a timely basis and may not be as extensive or reliable as possible. Such data, even if combined with actual landings data, would be unlikely to provide a sampling base adequate to allow development of accurate conclusions about the fishery. We believe a better method for obtaining the information to assess driftnet impacts would be through cooperative research efforts with the other nations. Using this approach, we would increase the likelihood of getting data that is both timely and scientifically reliable. We intend to place our scientists aboard Taiwanese and Korean high seas vessels in 1987 as we did in 1986, and are discussing similar actions with Japan. Information derived from such cooperative efforts would have better potential for providing the information envisioned in the legislation. However, considering the size of the area over which the fishery occurs, even these efforts may not be sufficient.

Senator STEVENS. I suspect, Mr. Chairman, that some of these responses we have received have been semidirected by my old friends over at OMB in the process of their legislative clearance. I am reading between the lines what Dr. Evans is saying to us, that if we would make a specific request for this information, we might be able to get it without it being in the form of a cleared legislative report.

Consider that I have made the request for that, Dr. Evans, alright?

Dr. EVANS. That has been considered, sir. thank you.

Senator STEVENS. Thank you, Mr. Chairman.

Senator KERRY. Can you give us any sense of when we could expect that, and we will leave the record open in order to include that?

Dr. EVANS. There are a lot of blank faces back there, but I will commit the people. Certainly since we are coming up at the end of the week, the first part of next week we will have some information to you.

Senator KERRY. We will leave the record open for the next two weeks, and there are also some written questions we may want to submit.

Senator STEVENS. Thank you, Mr. Chairman. I appreciate your courtesy.

Senator KERRY. The Magnuson Act specifically permits the Secretary to prepare or amend a fishery management plan if the council involved fails to adopt a plan or fails to provide a revision to an existing plan.

Now on April 14, 1987 the New England Council received a letter from NMFS which specifically set out a secretarial amendment to the groundfish plan that they had prepared. At that very moment, at that very time, public hearings were under way by the council on the council amendment to that plan.

So my question to you is how do you justify with the council in progress, with no violation of the process mandating the secretariai amendment, the time, the effort, and what was the rationale of providing that amendment?

Dr. EVANS. The contingency plan which we have put in place, because of the timing, was put there in case the public comment on the New England groundfish plan, which we hope is going to be successful, does not meet some of the national standards. We will then have an interim or contingency plan that we can come up with.

We have all hopes with the negotiation, and I have met with the New England Council myself, personally, that the council is going

to have a plan that is acceptable and that we have all intentions of accepting that plan and having it in place in time; but we have as a backup, since we must have some sort of a plan in place for those particular species because, as you are well aware, those are stocks that are very heavily fished and that in some cases have been taken down to extremely low levels. We need to have some kind of a good conservation measure so that we do not lose any time in putting this in place.

It is only a contingency plan, and our intentions are to go with the council on their plan unless we come up with some sort of a problem on, say, national standard number one having to do with not preventing overfishing or some other problem.

Senator KERRY. At the time that you issued the secretarial letter, did the center at Woods Hole indicate in any way to you that the council plan was insufficient?

Dr. EVANS. We were still waiting for the finishing of data on the socioeconomic impact. Information was not available at that time. I know sometimes when we say the data were in the computer, it sounds like the check was in the mail, but in this particular case that was the reason. We did not have the full information. In fact, that letter which was sent out was shared with the groundfish plan in draft form and discussed with them at their meeting.

Senator KERRY. So you are saying that you shared that information with the council for their revision process?

Dr. EVANS. Prior to the time that they had their public hearing, sir.

Senator KERRY. Was there any effort made to insure that the NMFS effort was not duplicating what the council was already undertaking?

Dr. EVANS. Yes, sir. With the exception of a couple of minor issues that I am sure will be resolved, we have pretty well paralleled the plan that the council has.

Senator KERRY. What do you think of the New England Groundfish Council's amendment?

Dr. EVANS. With the knowledge I have of it as of the last time I have seen it, with the exception of a few minor points that we have in terms of area closures and some discussions of mesh size and other technical issues, I think it parallels the plan that we have prepared fairly closely.

Senator KERRY. Do you think it is fair to say that the NMFS plan was considerably more stringent?

Dr. EVANS. I would not say it was considerably more stringent, no, sir.

Senator KERRY. Was it more stringent?

Dr. EVANS. More stringent, yes, sir.

Senator KERRY. Do you think it is fair to say that there are some difficulties in expecting local fishermen who are working with their council to abide by a more stringent plan imposed on them from sort of on high?

Dr. EVANS. Well, the plan that we currently have right now we feel is one that comes as close to achieving the conservation ethic that was set forth in the Magnuson Act as we possibly can come to, taking into consideration the socioeconomic problems that exist there.

That is one of the reasons that we are also working very vigorously not just on the plan, but we are working on trying to develop alternative fisheries for the people in that area to mitigate it so that we can get them to back away from some of those stocks.

That was one of the reasons, my major reason, for having an interest in going to Poland with Ambassador Wolfe, to talk about the possibility of getting them to buy products from our New England fishermen.

Senator KERRY. Well, I guess the point I am making is that one of my constituents who is a fisherman said that he has not seen a regulation put there by the Federal government that a fisherman cannot figure out a way around.

Dr. EVANS. I was told by most of them that they know how to cheat very well, sir.

Senator KERRY. Which seems to indicate to me that the best chances of encouraging conservation and the goals of all of us, particularly you, are to work with them rather to impose something on them which invites the going around process.

Dr. EVANS. That is one of the reasons why I have been attending the meetings there and working very closely with our regional director and inserting myself into the end of the system at this date.

Senator KERRY. I appreciate that, and I think they will. I certainly hope that that kind of cooperation will continue, because I think if it does not we are not going to enhance any of the goals that we talked about earlier.

Just this past week, Secretary Hodel released the Interior Department's five-year offshore drilling plan. In that plan, sensitive areas around the Georges Bank will now be available for leasing, not obviously for the first time. We have been through this before. The 50-mile buffer zone off the Cape and Islands, very sensitive spawning grounds, the Great South Channel and the Lobster Canyon, they are all involved in this.

It seems to me that considering the Georges Bank as one of the greatest, most productive areas that we have available to this Nation, if not one of the most productive areas in the world, and that New Bedford is the number one port for fishing value-landed in the United States today, as the Federal agency that is responsible for that management, were you asked for any kind of input into this particular decision?

Dr. EVANS. Yes, sir.

Senator KERRY. What comment did you give them?

Dr. EVANS. We have been involved in evaluating the lease sale activities on Georges Bank for many years and provided recommendations to Minerals Management Service in order to safeguard the appropriate fisheries resources, which we are very concerned about in that area, while allowing the leasing to proceed.

Most recently, which was January 12, 1987, we commented on a call for information from Minerals Management Service in regard to Lease Sale 96. This sale is in a preliminary phase. The environmental impact statement is planned for release in early 1988. The eventual sale, if any, would occur in 1989. We are currently participating in the North Atlantic Biological Task Force in providing input for the Georges Bank monitoring program designed to determine the impacts on biological resources from exploratory drilling.

We anticipate that the positive results achieved so far will continue, and we are going to be continuing to watch that process very closely. We are very well aware of the sensitivities of Georges Bank. It is an extremely vital area for not only fisheries but for the total environmental concept that we are trying to come up with, and we are going to be watching it very closely, sir.

Senator KERRY. So your basic comment to them was to proceed ahead with the intention of a series of future monitoring?

Dr. EVANS. But watching, making sure that the biological monitoring group is continuing to look at that area. We are going to be doing more larval sampling in the area, and it is one of the most intense areas in terms of our sampling.

Senator KERRY. Is there an increased allocation in the budget for the purpose of that increased monitoring?

Dr. EVANS. I do not know that specifically. I cannot really answer that. I can answer it for you for the record, but I do not recall right offhand.

Senator KERRY. I do not want to revisit this issue entirely, but it is my understanding that the best geological prognoses, assuming there were to be any oil there, is that it might be able to supply perhaps three days of the needs of this country. Is that correct?

Dr. EVANS. Those are numbers that I have heard before, sir.

Senator KERRY. Do you believe it is worth all the risk and all the monitoring and all the effort for the potential of three days of supply for the United States?

Dr. EVANS. In my personal opinion, no, sir.

Senator KERRY. Why did you not recommend that to the Secretary?

Dr. EVANS. I have not had an opportunity to make a recommendation to the Secretary as of yet, sir.

Senator KERRY. Well, I just asked you. That was my question. Did you have any input to the process?

Dr. EVANS. You asked a different question, sir. You asked about the three days' worth of oil. Now, I have not seen any documents telling me that specifically, for one; and secondly, we are looking at the biological data at the present time in terms of determining what the impact would be for oil drilling muds, exploratory oil, a whole variety of other complex issues.

That is a particular, very complicated program, and I think it would be a little premature to make a recommendation at this time.

Senator KERRY. Well, EPA recommended not to go ahead, did they not?

Dr. EVANS. They may have. If you say they did.

Senator KERRY. I am telling you. I can answer that question for you. They did. I should say to you, and I say this as nicely as I can, but I think that is something you should be aware of. I think that you should weigh in on this.

Let us give it the best. Let us say it is five days. If we are serious about protecting the Northwest Pacific, the Georges Bank and all the rest of the areas, under the threats that we are currently facing with the competition from other countries and the increased interest in fish and the increased diet of Americans turning towards fish, I would bend towards the conservative side and say let

us make sure we protect it and not make this kind of a risk for the potential of five days.

I would certainly hope that your agency, given its charge and given the charge of the Magnuson Act, would do so. I really do.

Dr. EVANS. We have in the past leaned very heavily towards agreeing with the EPA responses to a number of these issues as far as the evaluation of the environmental impact study.

Senator KERRY. Well, I sure hope this time you will stop leaning and fall over and do it.

Dr. EVANS. We will try to fall.

Senator KERRY. Thank you.

Do you have any further questions of Dr. Evans before we excuse him?

Senator STEVENS. I am constrained to say, Mr. Chairman, that three to five days on a national basis, that is a lot of oil.

If you want to look at protection of the marine resources, I would urge you to look at the 13 sedimentary bases in Alaska that are onshore that are close to expiration. At least one of them would supply several years of our Nation's needs, and we are blocked from access. If we are blocked from access to the great structures on shore, they have to go off shore. We still have to have domestic oil, and this is not the time for that hearing.

Senator KERRY. No, I know that.

Senator STEVENS. I do think that we have some alternatives to Georges Bank, and they ought to be pursued.

I do understand you want to let Dr. Evans go so that we might have one last question with Mr. Wolfe.

Senator KERRY. Thank you. I appreciate your comment, and it is something I am trying to learn a lot more about. I met with some friends of yours who are educating me on it, and I am certainly looking at that other issue.

Doctor, thank you very much for being with us. We appreciate it. We will excuse you at this time with the caveat that there are a few written questions I think we would like to submit.

Dr. EVANS. It would be my pleasure to respond to any of them, sir.

Senator KERRY. We would like to receive the answer to Senator Stevens question for the record.

Dr. EVANS. Yes, sir.

[The following information was subsequently received for the record:]

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
May 27, 1987, Washington, DC.

Hon. JOHN F. KERRY,
U.S. Senate, Washington, DC.

DEAR SENATOR KERRY: This letter is a follow-up to discussions about Georges Bank oil and gas leasing activities which occurred during your National Ocean Policy Study oversight hearings on April 30, 1987. On that occasion you asked for National Marine Fisheries Service (NMFS) views on several matters. I would like to elaborate further on a few of these issues.

You inquired whethter NMFS has augmented its budget allocations for increased monitoring of oil and gas effects on marine resources in the Georges Bank area. We are not increasing our oil and gas related monitoring in this geographic area because we believe that given the current level of leasing and development activities our efforts are adequate. We are, however, planning to increase our effort in marine

ecosystem analysis nationwide, within which an appropriate emphasis will be placed on the study of valuable living resources found in the Georges Bank area. I might add also that the Department of the Interior's Minerals Management Service (MMS) has been supporting a substantial Georges Bank interagency sampling program for several years. NMFS's continuing efforts are also part of this broad effort encouraged and coordinated by MMS.

You asked also whether we agreed with an Environmental Protection Agency (EPA) recommendation that MMS not proceed with any sales in the North Atlantic including Georges Bank. We respect EPA's view but believe that it may be overly restrictive. The NMS has supported our requests to defer and delete certain high senstivity tracts from sales for many years. We anticipate that this procedure will continue. Virtually all high quality sites of particular concern to NMFS were excluded from consideration in the uncoming proposed Sale No. 96, for example. We ensure our early involvement in any proposed leasing of Georges Bank because of the particularly valuable natural resources found there.

In addtion to coordinating with us throughout the leasing process, MMS always consults with us regarding possible effects of any leasing activity of whales, sea turtles and other endangered and threatened species found in the Georges Bank area. In this regard, we will be preparing biological opinions for MMS inclusion in the Lease Sale 96 draft environmental impact statement planned for distribution and review early next year.

The NMFS staff and I would be pleased to work with you on Georges Bank oil and gas leasing matters and other items of concern to the Subcommittee.

Sincerely,

WILLIAM E. EVANS,
Assistant Administrator for Fisheries.

Senator KERRY. Thank you very, very much. I would just like to excuse you so we can get to the questions that Senator Stevens had of Mr. Wolfe, and then we will proceed to the next panel.

Senator Stevens.

Senator STEVENS. Thank you very much.

I think we ought to just ask the Ambassador, what can you tell us now that he is gone?

Mr. WOLFE. I am sure you have questions, Senator Stevens, but if I could I would like to follow up on the seabird issue.

Senator STEVENS. That is what I am talking about. What would be your response to the question that I asked that might have involved Dr. Evans?

Mr. WOLFE. I do not know whether this would impact Dr. Evans ex parte concern but I will give you my response.

As a result of your legislation and others and meeting with the staff, we have officially proposed to the Japanese that we meet this summer to talk about the seabird issue. We also anticipate talking about the same issue with the Canadians because they are all involved in this also.

It is not an issue that, as you know, we have direct responsibility for at the State Department and, of course, the Department of Interior and the Department of Commerce have responsibility. But we are working toward some solution.

There are some concerns that we have raised in our testimony with regard to that particular provision in your bill. We look forward to continuing to work with you and with the staff to try and resolve that problem.

The specific concerns are highlighted in the longer version of my testimony, but basically they have to do with the INPFC agreement or, I should say, the understanding that we have with the Japanese and that we renegotiated with the Japanese to incorporate within the INPFC.

So we will be talking with the Japanese.

Senator STEVENS. Thank you. I did note the comments in your statement.

Let me ask you one last question, if I may. You made a statement in your discussion and in your statement that you are attempting to obtain accurate information on the harvest in the area of the donut from countries that are fishing there. We call it the donut area in the North Pacific.

Are there countries that are not willing to share that data with us?

Mr. WOLFE. Let me start off on a positive note. We have requested specific information from all harvests in these international waters, this donut area that you referred to in the Bering Sea. We have requested it from the Japanese. We have requested it from the Koreans, from the Poles and from the Chinese.

We understand that the Japanese and the Chinese, PRC, have provided these statistics to the council and to NMFS. They have not been provided directly to my office as of yesterday, but the information is available, at least from the Japanese and Chinese.

I raised it with the government of Poland during the visit a couple of days ago, and they have also said they will provide the information. "Although less than cooperative," the information is coming. I do not know quite how to phrase it, but we are attempting to obtain the information, and it is available, some of it.

Senator STEVENS. Why not answer this for us for the record. Would you give us your opinion? Why should we not amend the Pelly Amendment to specifically cover failure of a nation to give us information when requested concerning their activities with regard to straddling stocks so that if we cannot get the information for a proper management regime within our zone because the stocks are actually present a part of the year outside the zone, we might use the embargo tactic that is authorized by the Pelly Amendment to assure we get the data the next time?

Mr. WOLFE. I am probably the wrong person in the administration to ask that, Senator Stevens, as I am a big fan of the Pelly Amendment. So I would not be able to give you an official response, but I think that if legislation were presented and we were asked to respond to it or to review it and comment, I would just have to wait and see what the rest of the——

Senator STEVENS. I have to tell you, my friend. I am making that request now because I am seriously thinking of asking the Committee to amend the bill we have before us in the form of an amendment to the Pelly Amendment to strengthen the Pelly Amendment to deal with this informational gap that we have with regard to the straddling stock.

Mr. WOLFE. I am anxiously looking forward to hearing from you.

Senator KERRY. Just very quickly before we end this. Are there any current bilateral agreements which you are discussing with the Canadians at this moment?

Mr. WOLFE. Not to the best of my knowledge, not government agreements. As a result of the World Court decision, we have been taking it very slowly, which is a very long and complex story in itself, but working our way into some type of relationship with the Canadians. I think we will get there in the near future, but we are

not rushing on that. Scientific maybe, but not fisheries that I am aware of.

Senator KERRY. I beg your pardon?

Mr. WOLFE. You say bilateral. Maybe there are bilateral scientific, fisheries scientific arrangements.

Senator KERRY. No, bilateral fishing.

Mr. WOLFE. Yes. Not to the best of my knowledge.

Senator KERRY. At a recent scientific meeting, though, the Canadian fishery managers indicated that there was something about an additional 20,000 metric tons of redfish that could be available within the 200 mile zone and that they could be harvested each year.

Are any negotiations under way to provide U.S. fishermen access to that resource?

Mr. WOLFE. Not from the State Department.

Senator KERRY. Should there be?

Mr. WOLFE. I think it is something we could consider.

Senator KERRY. Would you consider that?

Mr. WOLFE. We could consider anything that was presented to us, yes, sir; but I think that we should understand that there are, and this is your area, very complex issues involved, not just the trade issues but joint management issues and these transboundary stocks that we were talking about earlier. We would have to take a look at the whole picture before we made any decision, but certainly we would consider anything that was presented to us.

Senator KERRY. Just a last question. The industry tells me that you are very well informed on the New England groundfish plan as well as their interest in a technical conference on the differences and scientific consultations between the United States and Canada.

Do you think that it makes sense to have that kind of a conference before we further any negotiations, or how do you feel about it?

Mr. WOLFE. To be perfectly honest with you, I am not that well informed.

Senator KERRY. You are not that familiar with it. So I am misinformed. Well, why do I not pursue that with you at another time. Senator Wilson has arrived.

Senator Wilson, we were just about to end this particular panel and move into the groundfish plan. Do you have a statement or want to ask Mr. Wolfe any questions?

Senator WILSON. I have only an apology to you, Mr. Chairman, and to the witnesses. I am afraid that somehow the scheduling of Senate committees has resulted in my being required to participate in the markup of the Defense Authorization Bill, and it is from that exquisite experience that I have just come. I wish I could have come earlier, believe me. My apologies to Ambassador Wolfe.

I have no questions or opening statement.

Senator KERRY. Thank you. We appreciate it.

Mr. WOLFE. I have a question of Senator Wilson if that would be appropriate.

Senator WILSON. Well, let me see it in writing, and we will discuss whether it is appropriate.

Mr. WOLFE. Senator Stevens raised earlier before you arrived, Senator Wilson, the South Pacific Tuna Regional Fisheries Agree-

ment that we recently concluded. Two weeks ago we signed the treaty, as you are very well aware because of your constituency.

We would look forward to working with you and Senator Kerry and Senator Stevens towards ratification and implementation within the next couple of months, hopefully before the August recess. I had to get that plug in.

Senator KERRY. I thought it was a question.

Senator WILSON. That is like most of the questions I get, as a matter of fact.

Senator KERRY. He promises to ratify it.

Mr. WOLFE. Thank you very much. That is all I needed to know.

Senator STEVENS. The man who can dance with the California Raisins in the halls of the Hart Building can handle the Tuna Treaty like that. That is what you were doing last night, was it not?

Senator WILSON. That is what I am told.

Senator KERRY. Thank you very much. We hope you have no further encounters with your dog.

I would like to ask the New England Groundfish Panel to take their places.

Gentlemen, thank you for being here. Our panelists are Mr. Doug Marshall, Executive Director of New England Fisheries Management Council; and Mr. Tim Sullivan, Executive Director of the Cape Ann Vessel Association.

Gentlemen, we would appreciate it enormously if you could summarize your statements. I think we are going to move into about a five-minute summary period here to keep this moving. Your full testimony will be submitted and accepted for the record.

Mr. Marshall, welcome.

STATEMENTS OF DOUGLAS G. MARSHALL, EXECUTIVE DIRECTOR, NEW ENGLAND FISHERY MANAGEMENT COUNCIL; AND TIM SULLIVAN, EXECUTIVE DIRECTOR, CAPE ANN VESSEL ASSOCIATION

Mr. MARSHALL. Thank you, Senator. I will be much briefer than my statement. I do have a three-page statement I have submitted. It is essentially a chronology of the management of groundfish in New England and the Northwest Atlantic area going back to the days before the Magnuson Act. It has not been a smooth and happy progression necessarily, but I think we are making progress.

The essential thrust in the statement that I have submitted is somewhat different from the impression that I believe was left by Dr. Evans, that everything is sort of sweetness and light. I believe that we do have a genuine problem in the question of the relationship between the National Marine Fisheries Service and the various fishery management Councils and their respective roles.

This is not an issue that is isolated in New England or with respect to groundfish. I have a copy of a letter here which I received in my office yesterday from the Executive Director of the National Coalition for Marine Conservation in Savannah, Georgia on a different fishery on a different set of circumstances with essentially the same problem of the National Marine Fishery Service substituting its own judgments for the judgments of the fishery manage-

ment Councils after they have gone through the public process prescribed by the Magnuson Act and prescribed by various executive orders and other applicable laws that govern how fishery management plans are put together.

We do not ascribe bad faith to the people in the National Marine Fisheries Service. Many of them are good friends of mine. I have a lot of respect and admiration for them. They genuinely believe in the positions they are taking on various things such as the groundfish plan in our case in New England; the swordfish plan, which is a South Atlantic Council plan; and some other examples of this sort.

They believe that their position is a correct one, and they act in good faith. The problem that we have is that the Councils were set up to do specific things through a specific process. The councils, also in good faith go through that process, arrive at conclusions and judgments, and put in place plans or amendments to plans, only to have the National Marine Fisheries Service turn those decisions around and reject them as not being satisfactory.

We are aware also that the National Marine Fisheries Service does have a review role and an approval role with respect to fishery management plans. We understand that they have to examine plans for consistency with the national standards, but we believe that in the case of the groundfish plan in particular, that even the issue of consistency with the national standards and particularly with respect to national standard one which relates to overfishing that, again, it has come down to a matter of judgment. We believe that the Council's judgment is the one which should prevail on this particular issue.

I will not add anything more at this time, but I would be happy to respond to any questions.

[The statement follows:]

Statement

by

Douglas G. Marshall, Executive Director
New England Fishery Management Council

Regulation of U.S. groundfish harvests in the North Atlantic area outside three miles began during the period when the United States was a member of the International Convention for the Northwest Atlantic Fisheries (ICNAF) and adopted minimum mesh sizes, haddock spawning closures and quotas for some species.

The New England Fishery Management Council (the Council) instituted a fishery management plan (FMP) for groundfish very shortly after the Council was established in 1976. That plan was developed on the advice of the National Marine Fisheries Service (NMFS) and was based on quotas for cod, haddock and yellowtail flounder, minimum fish sizes for cod and haddock, a minimum mesh size when fishing for cod, haddock and yellowtail, spawning closures and other regulations regarding by-catch and discards. The quotas established proved very restrictive and resulted in repeated closures of the fishery at times when fishermen insisted that there were great abundances of the regulated species (cod, haddock and yellowtail flounder). There was great industry resistance to what were seen as unreasonable and unnecessary regulations. The plan was so unrealistic that at one point it was illegal to land fish below a certain size and at the same time it was illegal to discard any fish at sea.

In Spring 1983 the Council, after much heated debate and after extensive consultation with the industry, put in place an Interim Groundfish Plan that relied on minimum fish sizes for cod, haddock and yellowtail, an increased minimum mesh size of 5-1/2 inches for the cod-end in trawl gear, spawning closures for haddock and an Optional Settlement Program that allowed fishing with smaller than the 5-1/2 inch mesh in certain areas but with restrictions on the by-catch of the three regulated species in that small mesh fishery.

The Council then set out to develop a long-term FMP for management of New England groundfish. This effort began in 1983 and was concluded in the summer of 1985 when the Northeast Multispecies Fishery Management Plan (the Multispecies FMP) was submitted pursuant to the Magnuson Act for review by the Secretary of Commerce. The process of developing the plan was a very deliberate and a very thorough one. Industry advisors were regularly and frequently consulted. Numerous committee meetings were held. Biological, economic and social data were reviewed, various alternative management measures were analyzed and their regulatory impacts were calculated.

The Council, early on (in August 1983), adopted two basic management goals that were pursued throughout development of the FMP: (1) allow the multispecies fishery to operate with minimum regulatory intervention; and (2) adopt initial measures to prevent stocks from reaching minimum abundance levels, defined as those levels below which there is an unacceptably high risk of recruitment failure. From these basic policy goals, the Council progressed to an objective intended to assure that over the long term there will be a continuing and viable mixed species fishery in the New England area. This will be done by measures that will assure that year classes replace themselves in the stocks and that reduce mortality, on juvenile fish in particular. The Council believes that with this approach will maintain stocks and will allow rebuilding of stocks where abundance is low.

The initial measures included: minimum fish sizes for four additional species in addition to cod, haddock and yellowtail; scheduled increases in minimum sizes for cod, haddock and pollock; an exempted fishery program to allow for legitimate small-mesh fisheries that is more restrictive and more enforceable than the optional settlement program under the Interim Plan; a substantial expansion of the area requiring the use of large mesh cod-ends; the minimum cod-end mesh size of 5-1/2 inches and the possibility in the Georges Bank portion of the large mesh area of increasing that minimum cod-end mesh size to 6 inches (subject to certain caveats); and a large area off Southern New England that will be closed to all bottom fishing with mobile trawl gear for periods from one to three months annually to protect the weak yellowtail flounder stock. The plan was submitted in August 1985.

The NMFS reviewed the Council FMP and rejected it, first in a very brief two-page letter that contained several opinions and unsupported assertions then, after a couple of weeks, in a detailed seven-page letter of February 6, 1986, based largely on comments from Fisheries Center staff at Woods Hole. The objections were at least as judgemental as scientific. The Council reviewed the reasons cited for disapproval, reworked some analyses and in April 1986 resubmitted the plan essentially with the same measures.

On July 17, 1986, NMFS informed the Council that a provision relating to an area in the Gulf of Maine where redfish could be fished with mesh smaller than the 5-1/2 inch minimum size was again being disapproved. The remainder of the plan was reluctantly approved for one year from the date of implementaiton (to October 1, 1987). The letter of partial approval made it clear that if the Council did not amend the plan, in a manner satisfactory to NMFS, to add measures "necessary to begin stock rebuilding" the NMFS would prepare a Secretarial Plan under the authority of Section 304(c) of the Magnuson Act.

Although the Council believes that its plan would, indeed, restore stocks over time, the Council immediately began preparation of an amendment to further strengthen certain measures in the FMP. The work schedule was calculated to allow full participation by industry advisors, to allow public comment at a series of public hearings and to have an amendment ready for submission in May so as to allow adequate time for NMFS review and approval and to allow implementation of the amendment before the October first deadline when approval of the plan would otherwise expire.

Notwithstanding assurances in the June 17 letter of NMFS' cooperation and assistance, the Council has received only insufficient and tardy assistance in the preparation of the amendment. Nonetheless, the amendment will be reviewed and formally endorsed by the Council in early May and will be submitted on schedule. Meanwhile the NMFS has prepared an options paper for the Administrator of NOAA that offers three possible alternatives for management by a Secretarial FMP. Two of the options would establish the objective of restoring cod, haddock and yellowtail stocks to their 1980 levels of abundance over either a five-year period or a ten-year period. Even senior NMFS officials concede that either of these would require a virtual shutdown of all groundfish harvests for several years and that they are totally unrealistic.

The third alternative purports to keep the Council's plan objective (but actually does not) and would impose eight measures contained in a letter of April 13, 1987. NMFS has been working diligently on this latter option, but their efforts to date have completely excluded any participation by the Council, by industry advisors, or by the public at large. Some of the proposed measures are more restrictive versions of Council plan measures (such as going immediately to 6 inch or greater minimum mesh size), while others are new and far more draconian. The NMFS plan almost certainly cannot be subjected to the public discussion and comment process envisaged by the Magnuson Act and other relevant laws, and yield a substitute plan that will be ready for implementation by October first.

We agree with the assertion in the NMFS Operations Handbook for the Magnuson Act that "Democratic tradition holds that without citizen participation in decision making, government bodies may act arbitrarily." We believe that NMFS may be about to do just that. More importantly, however, the Council believes that the substitution of NMFS judgements for the collective judgement arrived at by the Council over a period of many, many months of industry advice, staff analysis and Council debate, is a subversion of the letter and the intent of the Magnuson Act.

NMFS hinges its rejection of the Council's decisions and the Council FMP on the language of National Standard One at Section 301(a)(1) of the Act which says that management measures "shall prevent overfishing while achieving, on a continuing basis, optimum yield." Section 3(18) defines "optimum" yield in a manner that allows the Council, under Section 303(a)(3), to determine what the optimum yield for a particular fishery shall be.

Overfishing, although mentioned three times in Section 2(a) (always in connection with foreign fishing) is not defined in the Act. Although NMFS has defined overfishing at 50 CFR 602.11(d), it is clear that substantial judgement enters into a determination of overfishing. The Council judgement is that, notwithstanding low abundance levels of redfish, haddock, yellowtail flounder and cod, the mixed trawl fishery will not be overfished under the Council's FMP and that stock rebuilding will begin. We believe the Council's judgement in this regard should prevail over NMFS judgement.

What is at stake in this issue goes beyond groundfish in New England. At stake is a system of participatory democracy in regulation of those who utilize a resource that is owned by the nation and is available under equal conditions to all those willing to run the risks involved in entrepreneural competition. At stake is a system devised by the Congress after long debate and wide input by the affected industry. If NMFS can ride roughshod over the New England Council in this case, then the Councils all become little more than advisory bodies -- which the Congress has repeatedly said they are not.

Senator KERRY. We will have some, and I appreciate your summary very, very much.

Mr. Sullivan.

Mr. SULLIVAN. Thank you. I represent a group of fishing vessels of all sizes in the Port of Gloucester, and I share Doug's frustrations with the breakdown or what I see as a breakdown in the way things are running between NMFS and the council.

What I would like to do is explain what has happened to the resource in some cases because of what I see as this breakdown and the early confusions and growing pains that we had in the early days of the 200 mile limit.

If you will look at the sort of crude chart that I have drawn for you in the back, you can see that after the demise of the fisheries—that shows just the haddock catch but I think it is representative of the codfish fishery and also of pollock—that after the demise of the fisheries in the early 1960s, the mid-1960s, mostly at the hands of the Russians, you can see that the fisheries started to rebuild, coming from a low point in 1974.

We went from 8.2 million pounds of haddock landed in 1974 to 55 million pounds landed in the early 1980s. Then you can see that it all went right back down.

During this time, we tried many, many different ways of cutting up the pie, a lot of different rules, but the rebuilding was done with some very simple rules that were imposed during the latter days of ICNAF, the International Commission for the Northwest Atlantic Fisheries. That was a hopelessly useless organization until its latter days, I think mainly because of the threat of us imposing a 200 mile limit, and all of a sudden the foreign fishermen started complying.

With a simple minimum mesh size, closed areas for spawning and small trip limits, we rebuilt the stock from a very low point to almost halfway to where we were before the Russians came in in about five years. Then with all the rules that the fishermen found they could not really adhere to or did not understand or were not enforceable, it got back down to the point where we are now.

I would suggest that instead of NMFS going off with more and more strict rules and more and more convoluted regulations of their own, if we move to simplicity that the fishermen could support it, it could be enforceable, and we could rebuild the stocks. I think that that is the most important point I can make here. I have some other things here in my testimony that you can read.

[The statement follows:]

STATEMENT OF TIM SULLIVAN, EXECUTIVE DIRECTOR, CAPE ANN VESSELL ASSOCIATION

Good morning, I am Tim Sullivan, the executive director of the Cape Ann Vessel Association, a group of inshore, intermediate-sized and offshore fishing vessel from the port of Gloucester, Massachusetts.

We are here today to discuss the condition of the groundfish fishery off the coast of New England which has, for the past decade, been under the control of New England Fishery Management Council and National Marine Fisheries Service under the provisions of the Magnuson Fishery Conservation and Management Act.

Through these 10 years numerous measures have been tried that were intended to rebuild stocks of haddock, cod, flounder and other species generally thought to be in a severely depleted state when extended fisheries juriation began in March, 1977.

There have been trip limits, seasonal closures, ever-increasing restrictions on net mesh sizes, market limits on fish size and other provisions which, we're sorry to say, have not worked in the most important of all areas; conserving and rebuilding depleted stocks.

Both fisheries officials and our fishermen say the abundance of fish is at or near an all-time low and only the current high demand for seafood is staving off financial doom for many of the boats in the fleets of Gloucester and throughout New England.

The regional council is currently developing amendments to its management plan that council members hope will satisfy NMFS demands that rules be stricter to provide more protection for immature fish.

At the same time, NMFS is developing a plan of its own with even tighter restrictions including many that fishermen say would make it absolutely impossible to catch fish, let alone survive economically.

NMFS officials have countered the fishermen's comments with cold assurances that "some of you are going to go broke" or "I hope you like growing tilapia," a species of fish commonly grown in backyard swimming pools as a crude form of aquaculture.

Council members have said both publicly and privately that NMFS has been less than diligent in some of its enforcement efforts, possibly in hopes that the council plan will fail . . . and on it goes, getting all of us absolutely nowhere and pushing the fisheries further into decline with regulations fishermen find impossible to survive under or enforcement agents find equally impossible to enforce.

Our association believes the time has come to take a new look and approach to the goal of rebuilding stocks with a spirit of cooperation that has, for the most part, been lacking.

NMFS officials say they doubt the council's approach will work and even express doubt that their own plan will succeed in rebuilding the stocks before the end of this century.

But the fact is that even if NMFS were correct and the fisheries for groundfgish off New England could b e rebuilt before the end of this century, 13 years of rebuilding is far too long a time for a struggling industry to hang on.

It's also uncecessarily long in comparison to the the works of rebuilding that occurred just prior to the implementation of the 200-mile-limit law in the early and mid-1970s.

Foreign fishermen, you will recall, applied tremendous pressures to fish stocks off the East Coast in the late 1950s and early 1960s, culminating in the imfamous haddock slaughter of 1965 during which more than triple the average annual catch was taken - small fish, large, anything available.

The foreigners then moved on, leaving the fishery to decline precipitously as can be seen on the chart I've provided you.

From an average catch of approximately 110 million pounds per year from the 1930s through 1964, the domestic take declined to an all-time low of 8.2 million pounds by 1974.

As there is now, there was talk of impending doom, but as bleak as things might have looked, the work of conservation and rebuilding was already being accomplished thanks to the International Commission for the Northwest Atlantic Fisheries, a 17-nation body that did little to conserve much of anything until the early 1970s.

Then, it apparently became clear that all this talk of 200-mile-limits from both the United States and Canada was not idle chatter and foreign fishermen began to comply with the rules out of fear of repercussions.

A minimum mesh size of four and one-half inches - considerably smaller than the currently required five and one half inch mesh and much smaller than the six, seven and eight-inch meshes NMFS is talking about - was required of all vessels fishing groundfish. Trip limits were set at 5,000 pounds or 10 percent of the total catch and closures were continued of known spawning areas.

And that was it, a simple set or regulations which were generally supported by fishermen as reasonable that were also enforceable.

They took effect in the early 1970s and began showing results within three years young haddock began being taken in quantity in the nets again.

We increased landings from that low of 8 million in 1974 to 16 million two years later, 40 million two years after that and up to a peak of approximately 55 million in the early 1980s when the fisheries were firmly in the hands of NMFS and the council and the simple rules were supplimented by many more complicated ones that the fishermen neither understood nor could support, many of which also couldn't be enforced.

By comparison, the old ICNAF rules might have been simple, maybe even simplistic in comparison to some of the things suggested by NMFS scientists today, but the fact is that they worked. They were generally supported by fishermen, they were enforceable and they worked!

The system broke down and ended up failing for a variety of reasons, including an inability of the system to change in a timely manner to new developments.

One of the most important of these was the influx of boats built by those attracted by the anticipations of continued high profits in the fishery like those experienced in the very late 1970s and early 1980s before the bubble burst.

We have suggested to the regional council that the old and simple rules might now be the most appropriate, given that we are at the same sort of a low point in the conditions of the stocks.

We will also suggest that a form of fleet stabilization be implemented that will provide for free access to the fisheries for those who would be doing the work of rebuilding under our plan but would make it difficult for non-fisheries-related investors to build or buy boats a few years down the line to capitalize on the rebuilt stocks and contribute to another devastation of the fisheries like that we have just endured.

And, finally, we hope that the Secretary of State can be convinced to begin earnest negotiations with the Canadians that would result in restoration of some of our historic rights to fish in waters of Nova Scotia. Many have said this is impossible, that the Canadians are simply not interested in making such concessions, but we believe the provisions of the Magnuson Act requiring an embargo on seafood imports from nations which do not ratify such treaties with us might be a strong enough lever to compel some concessions.

Spreading the fishing pressures over a larger area will also help to promote a more rapid return to a robust fishery and it is clear that many of the groundfish stocks are truly international, being spawned here and maturing there or visa versa.

We know somew of what we're saying here will be controversial, even radical, but we firmly believe the time has certainly come to take some new looks at our future.

We also hope our ideas and comments here are viewed as conceptual; that is what we intend. We do not claim to have all the answers and believe, above all else, that the proper arena for discussion of the details of our ideas is within the regional council.

Our intentions today are to respond to your interests in the groundfish problemns in the Northeast and we appreciate your concerns. Thank you.

Senator KERRY. I appreciate, again, your brevity and the major point that you make.

Let me begin, if I can, very quickly. Mr. Marshall, you are describing a relationship that is obviously different from the relationship that Dr. Evans was describing earlier, at least I think. I happened to see you react in the audience, or at least I think I saw you react, when he said that their proposal closely parallels your proposal, and he saw it as a contingency.

Could you comment on that?

Mr. MARSHALL. Well, after the plan was approved last year, and it is approved through September of this year——

Senator KERRY. Your plan?

Mr. MARSHALL. Our plan was approved for a one-year period. We set out to further amend the plan to strengthen certain provisions in it. The National Marine Fisheries Service, not long after we began our efforts, decided that they ought to have this contingency plan that Dr. Evans has referred to.

So they prepared a paper for Dr. Calio which contained three options. Two of the options are generally acknowledged even by people in the National Marine Fishery Service as completely unrealistic and something that would just devastate the entire northeastern fishery.

Senator KERRY. So you would disagree with his characterization that it closely paralleled your plan?

Mr. MARSHALL. The third option and the one to which they are devoting most of their effort has some of the same kinds of measures in it that our plan has, but it goes far beyond the council's level of regulation.

I think that the general feeling among the industry people that I have talked to in New England is that it is a much more Draconian system of management and that, in fact, it would either do one of two things. It would either put an awful lot of people out of business very quickly in the New England groundfish fishery, or it would engender so much disregard of the regulations and so much noncompliance, that the regulations would yield less productive movement towards conservation than what the council has proposed.

Senator KERRY. When you say put them out of business, that is because of the increased investment that would be required as a consequence of the new restrictions on fishnets, et cetera?

Mr. MARSHALL. It would result in a couple of things. One, the one thing that they have talked of doing is increasing the minimum mesh size immediately and not merely to a six-inch mesh which the council actually envisages for part of the area where large mesh is required, but they have even talked of seven-inch mesh and at one point eight-inch mesh.

First of all, anybody who went fishing with seven-inch mesh would not catch enough fish now to stay in business, not to mention the cost of doing that. So I think what you would have is that people would use liners or use smaller mesh and do whatever they could to evade those regulations.

Senator KERRY. Now if they do that——

Mr. MARSHALL. They are also talking, if I may just add, about some other more specific kinds of effort limitations. They would

think of possibly putting on trip limits or some things of that sort that go far beyond anything that the council has included in its plan or will include in this amendment.

Senator KERRY. Why do you think they are doing it? What do you see? They think they are protecting the fisheries. They think that they are putting down regulations that need to be placed there to conserve the fish stocks.

Do you think there is another reason?

Mr. MARSHALL. I think they are genuinely concerned about the condition of some of the groundfish stocks, in particular haddock, redfish, yellowtail flounder and to a lesser extent some of the other species as well.

There is no disagreement that those stocks are not in very good shape. We know that abundances are low in those stocks. The National Marine Fisheries Service takes the view that you need to keep all of those stocks at some level, and they have not described what that level is but they have talked in several cases about the 1980 levels of abundance.

The Council has taken the view that fish populations and abundances fluctuate and vary, naturally, and they vary in response to a number of the kinds of things that Dr. Evans was talking about when he discussed ecosystem modeling: temperature, salinity, the predator-prey relationships—a whole raft of things of that sort.

So we have said that you cannot keep fish stocks at any particular level, that they will go up and down, and that they should in fact be allowed to go up and down. The Council has taken the view that rather than trying to set arbitrary levels of abundance for these various species, what you really should do is try to keep fish in the ocean until they reach a size where they are sexually mature and have reproduced once, or hopefully twice or more times even, and also to a point where they have put on enough additional body weight that they yield more pounds of food per fish.

So our view of this is a different one than the National Marine Fisheries Service is, although we agree with them that the stocks are actually in very poor condition. It is essentially a difference in viewpoint about how fisheries ought to be managed, and we believe that the Act intended that the Councils make those decisions.

Senator KERRY. Mr. Sullivan, you said that fishermen would adhere to standards that they accept among themselves. And yet, I just heard Mr. Marshall say they are not going to go down to—or up to a certain inch mesh, because they are not going to catch enough fish.

So with reduced catches, where is the incentive going to be for them to police themselves, if their mortgages and their insurance rates and all are dependent on the size of the catch they bring home and the ability to pay to fill the coffers?

Mr. SULLIVAN. What we are talking about are, at this point, are mesh sizes that the fishermen say they cannot live with and in fact are not living with. The Woods Hole biologists say privately—I do not think anyone has said it for the record—that effectively we are conducting a groundfishery with nets that are supposed to be a minimum of five and a half inches.

We are effectively fishing with nets that are about three and a half inches. These are not precisely figures, but none of this stuff is, really, in black and white.

Because the net mesh is too large—it is allowing too much fish, from the fisherman's point of view, to escape and he cannot make a living. The result of this is that they are using liners, they are using straps to cut off the cot end so that it effectively catches more fish.

And this did not happen during that period I was talking about when the mesh sizes were smaller, but the stocks did rebuild, going from 8 million to 55 million pounds in five years, because the fishermen believed in it, it was enforceable, and it worked.

Obviously, a four and a half inch mesh is not going to allow as much small fish to escape as a five and a half inch mesh is. But if the five and a half inch mesh is not being used in a proper manner and it becomes a three inch net, then nothing happens.

Senator KERRY. My time has expired.

Senator Stevens.

Senator STEVENS. Well, Mr. Chairman, I am constrained to say, the concept came into this 200 mile limit process from Alaska and we have had great success, I think, in ours, and I would hope that you would have the same success in yours.

And I believe that we are seeing a natural resistance from the national people, who believe that there ought to be national policies dealing with these regions, and we believe there ought to be the freedom of each region to go its own way and decide what is best for its area, with one exception.

And that exception is the 200 mile limit was set up for the protection of the fish, of the species, and not for the protection of the fishermen. And I noticed your chart, Mr. Sullivan, and I noticed your question mark at the end of it.

It worries me that your region just does not seem to be putting the best interests of the reproduction of the resource ahead of the problems of the fishermen, and that is a bad comment coming from another area. But it is really a difficult thing for us to witness the destruction of the fishery resource off New England.

You know, that is the birthplace of the American fishery. And I do not have any answer. I just only want to comment to you, I think we would support anything you asked for to assure your autonomy, but we would urge you to find some way to limit the assault on your resource.

Mr. SULLIVAN. I agree with you.

Senator STEVENS. I have held hearings up there twice in the past and I do not know the answer. But we all see the problem. I think it has got to come from the fishermen in your area.

It cannot be imposed from the national scene, and that is why we saw it in the councils. It has to have support in the local area. You have the problem of having several states. We have two major states involved in ours. You have several states.

I do not see anything—some of our people suggest limited entry. Some of them do suggest catch limits. We have severe restrictions in terms of seasons.

I am sure you know, our council has emergency authority for closures and exercises it very greatly. Do you have that, Mr. Marshall?

Mr. MARSHALL. We do not have any limited entry programs in New England. The industry people have generally been very strong in their opposition to it, although there is some support for it.

Senator STEVENS. Do you have ceiling control on a council basis for emergency closure?

Mr. MARSHALL. In some cases we have. In the old groundfish plan, there were provisions for closures when certain quota levels were reached. We do not have any of those in effect in the groundfish fishery at present.

Senator STEVENS. Were they in the National Marine Fisheries plan?

Mr. MARSHALL. They were in the plan as put in place by the Council. But in all candor, the plan was essentially one developed directly on the advice from the National Marine Fisheries Service. This was the plan that was put in place at the very beginning of the Council system in New England.

Senator STEVENS. As I said, I do not mean to interfere. You have your own problems and I think we would support your autonomy. I just hope that you will carry out the intent of the 200 mile limit, to assure that reproduction comes first.

Mr. MARSHALL. If I could just comment briefly in response to the Senator's concern, I do not think we disagree with you that the viability and the health of the resources are of major importance, primary importance.

But the reason that we are all concerned about having strong stocks and a great abundance of resources is for use by the people of the region and the people of the United States.

To the Council's way of thinking some of the measures that have been proposed by the National Marine Fisheries Service might or might not succeed in restoring the stock levels, but they almost certainly would succeed in destroying a very substantial part of the industry.

Senator STEVENS. Thank you, Mr. Chairman.

Senator KERRY. Senator Wilson.

Senator WILSON. No questions.

Senator KERRY. I would like to ask a quick question for the interest of some of the scallop people in the New Bedford region.

Senator STEVENS. Could I ask one last question? I failed to ask, is there a problem in your Council about the driftnets, the opposition to driftnets in the North Pacific?

Mr. MARSHALL. Sir, to my knowledge there is, first of all, no foreign fishing taking place with nets of any kind on the East Coast. And the fishing that is taking place with nets by domestic people, both in the United States and in Canada, by Canadian fishermen, is all with bottom nets that fish essentially on the ground rather than in the water column or on the surface.

So the question of nets is one that has been discussed in our Council, but the Council has never taken a formal position on it. There are various people in the industry who have strong views on it—primarily from the point of view of pollution, lost nets, and that sort of thing.

Also, because these nets are fixed, because they sit in particular places on the bottom, there is a conflict between different user groups over who has the prior right or should be able to get into particular areas to fish.

Senator STEVENS. You never took a position in opposition to our council's position that they want to control the driftnets, and particularly the ability to abandon driftnets?

Mr. MARSHALL. No, our Council has not taken a position on the bill at all.

Senator STEVENS. Thank you.

Senator KERRY. The New Bedford scallop folks complain that the management plan they are currently operating under, where they have got both the meat weight and shell height restrictions, two standards that they are applying, which are not compatible, that somehow that is creating a problem for them.

And they have come up with a single standard, as I think you are familiar. And yet, neither the council nor the National Service has considered that plan. Is there any reason for that, or do you think that that——

Mr. MARSHALL. Yes, there is a reason, Mr. Chairman. The scallop fishery is a very difficult one in terms of management, because you have two different groups of people who harvest the resource in completely different ways. The draggers take the shells with dredges, bring them on board, and they actually open the shells and take out the meats at sea. They put them into canvas bags and bring them ashore all ready to go to market.

In other areas, including some areas in the Gulf of Maine and the in-shore areas down the coast, but particularly down in the South Atlantic areas, there are large numbers of people who are called "shell stockers", who fish primarily with nets.

They bring the shells on deck, take the entire animal, shell and all, in to shore, and then they are shucked out there.

The difficulty in all of this is that for a given size shell the meat inside, which is just the major muscle in the animal, is not always the same size. So trying to equate a shell height to a meat size from the animal is extremely difficult.

There are tradeoffs involved. At certain times the people who shell stock have felt that they were being discriminated against because the draggers who shucked at sea were able to average sizes, so they could take very small scallops and mix them with very large scallops and they would come up with an average number of meats per pound that was within the legal framework.

The shell stockers could not take any of those small shells, so they had to catch only those that were the minimum size or were larger and bring them in.

Now the shoe is on the other foot and you have a situation where most of the scallops are all fairly close to the same size, which means that there are not as many small ones and larger ones, particularly larger ones, to average together to come up with a legal size.

Now the shell stockers actually have an advantage because they can harvest the minimum shell size and it will yield more meats per pound than the people who work the draggers are allowed to have when they land their harvests.

So it has gone both ways. There is not a really happy solution to this. The Council is looking at other possible alternative ways of managing, rather than using either the meat count or the shell height as the standard.

We are looking at such things as seasonal closures on some sort of rotating basis, possible trip limits that would limit the amount of product that could be brought ashore on a particular fishing trip, and things of that sort.

Senator KERRY. Well, I appreciate very much your candor and your help in being here. I do have a number of questions that I want to try to get for the record in writing, particularly with respect to the current tension between the council and the Service, and see if there is any way to try to address some thoughts you might have about how that might be improved, because I think it is important that we try to do that.

And also, Mr. Sullivan, with respect to the question of enforcement and self-policing and the process by which you might be able to do exactly what Senator Stevens, who is very knowledgeable about this and has a lot more experience than I in it, was suggesting.

And I happen to have met with all sides of it. I have sat with people in Gloucester and I have sat in New Bedford and elsewhere, and I have talked to an awful lot of fishing folks who are under pressures to keep their boats going and to meet their family expectations and to keep going at a livelihood they have had for a long, long time.

But by the same token, you know, if everybody just looks at the short term provisions of that livelihood, they are going to cut out the long term. And we have got a responsibility to try to balance that.

I think you know that. I know you do, Mr. Marshall, and you are trying to do your best in a difficult atmosphere. And it is complicated, frankly, by the national approach to it and by the Service, and I think by the last few years' budget cuts and other matters.

So I would like the record to show your answers to that. But in fairness to my colleagues from the other ocean, I want to give them an opportunity to have enough chance before we are not allowed to meet to dig into their concerns here a little bit, too.

So I thank you very much, and I will leave the record open again for the same period of time as we await the answers. And if you could help us and get those answers in very quickly, that would be very beneficial.

At this time I am going to turn the chair over, because I have a prior engagement, and Senator Adams is going to chair the last panel. And if the participants in the driftnet panel would please take their places, we would appreciate that very much.

OPENING STATEMENT OF SENATOR ADAMS

Senator ADAMS [presiding]. Gentlemen, it is a pleasure to have all of you here this morning. I know most of you and I know that you are experienced in testifying before the committee.

This is on a very important matter, but I would be hopeful that each of you might summarize your statements and your statements

as written will be placed in the record, so that you need not read them.

This part of the testimony this morning is on S. 62, an effort to monitor and assess the adverse impact of driftnets, that has been introduced by the distinguished Senator from Alaska, Mr. Stevens, and co-sponsored by our colleagues, Mr. Murkowski, Mr. Danforth, Mr. Packwood, and Mr. Dodd.

And as you know, it is similar to legislation that was considered by this committee in the last Congress. There have been some changes which I understand have been primarily made as a technical matter by the State Department.

And it was clear from the hearings last time there are two levels of concern, which I hope you will address in your five minute comments about the driftnet fleets of Japan, Korea, and Taiwan who are now operating in the North Pacific.

One level is concern about the economic impact, because clearly these fleets are catching substantial numbers of U.S.-origin salmon and other stocks, and we are all familiar with the latitudinal lines drawn in the Pacific and the attempt to separate stocks, particularly salmon. And the net effect is that we have a diminution of our own resources, despite our clear rights under the Magnuson Act to clear them.

The second level of concern is the ecological impact of continued driftnet fishing, and I hope that some of you will address that. That process essentially involves laying out these non-degradable plastic nets 9 to 20 miles long, which capture everything in their path, which includes literally thousands of sea birds, fur seals, and porpoises.

That is bad enough, but what we also hope that you will address is the fact that during parts of the year portions of these nets are lost and they continue as ghost nets to fish for a substantial period of time.

Estimates suggest that every year another 600 miles are added in the North Pacific, which endanger fish, sea birds, mammal life, as well as creating a threat to human life and oceangoing vessels.

I hope we will have the views of each of the witnesses. We welcome you here this morning. I would request, if you can possibly do it, so that Senator Stevens, who has another commitment, will have ample opportunity to question on this legislation, if you could each limit your statements, your summaries, to five minutes.

If you cannot and slide a little, that is fine. But if you can do that, it will give more time for questioning. And Senator Stevens, without objection, if it is all right with you, I would like that we go through the whole panel and have them testify, and then we will question the panel as a group.

Is that all right with you?

Senator STEVENS. Fine.

Senator ADAMS. Have you selected one of you that wishes to proceed? If not, I will start at this end and move through. Has there been any agreement among you?

[No response.]

Senator ADAMS. If not, then, Mr. McManus, you are recognized and we are pleased to have you here with us this morning.

STATEMENTS OF ROGER McMANUS, PRESIDENT, CENTER FOR ENVIRONMENTAL EDUCATION; HENRY MITCHELL, EXECUTIVE DIRECTOR, BERING SEA FISHERMEN'S ASSOCIATION; DENNIS PHELAN, D.C. REPRESENTATIVE, PACIFIC SEAFOOD PROCESSORS ASSOCIATION; AND ALAN REICHMAN, GREENPEACE NORTHWEST

Mr. McMANUS. Thank you, Mr. Chairman. I am pleased to have the opportunity to present testimony today in support of S. 62, a bill to improve efforts to monitor, assess, and reduce the adverse impacts of driftnets.

I am Roger McManus and I am the president of the Center for Environmental Education, a private nonprofit marine conservation organization. CEE has been very actively involved in the issues of entanglement of marine species in marine debris and by incidental take in active fisheries.

Most recently and most pertinent to the legislation before you, we were a party to the formal rulemaking on proposed regulations to govern the taking of marine mammals incidental to the Japanese commercial salmon gillnet fishing operations in the U.S. EEZ. CEE presented testimony and legal arguments on the issue of the incidental take of sea birds by these fisheries.

We wish to emphasize that we are not going to comment for this procedure on the merits of conclusions of law, but we are merely reiterating our presentation of the facts on the incidental take of 21 species of sea birds by the mother ship, land-based, and high seas fisheries.

Of the 21 species of sea birds taken in the drift gillnet operations, 18 are protected under an international treaty between the United States and four other nations, including Japan. While I will not give details on the obligations of the parties to this treaty at this time, I would like to refer members to the record of the permit proceeding for a detailed discussion of the legal arguments.

We also urge the committee to take note that the sea bird mortality was identified as an issue to be covered in the draft environmental impact statement preparatory to the formal rulemaking. The final impact statement is expected to be released this week and we look forward to finding out whether comments pointing out inaccuracies in the sea bird assessment are incorporated in the final document.

I wish to summarize the written testimony we submitted and particular cover five areas: level of incidental take of sea birds in the North Pacific gillnet fisheries; the impact of that mortality on specific western Aleutian populations; positive effects that could be realized by the sea bird protection zone described in S. 62; the need for Congressional action; and some general comments in support of the bill.

Of the five gillnet fisheries operating in the North Pacific, accurate mortality estimates for marine birds are available only for the Japanese mother ship fishery. Between 1981 and 1984, mortality rates ranged from about 100,000 to about a quarter of a million birds annually.

The mortality within the U.S. EEZ is expected to increase when changes in the location of the fishery will shift fishing efforts from

areas of relatively low marine bird mortality rates to areas with high mortality rates.

These mortality estimates do not include birds which drown in nets and then drop out before they are retrieved, nor do they include the numbers of birds killed in the roughly 1,000 kilometers of gillnet lost or discarded each year by the North Pacific fleets.

Data obtained from the U.S. Fish and Wildlife Service indicate that mortality rates of breeding birds within 60 nautical miles of land were five times higher than the rates in the remainder of the U.S. EEZ, and accounted for 49 percent of all breeding bird mortality.

Fishing effort within this 60 nautical mile zone accounts for 15 percent of the total effort within the U.S. EEZ. Because mortality rates of marine birds or breeding birds are higher closer to the islands, it is possible to reduce breezing bird mortality by approximately 41 percent by shifting the fishery location away from the islands.

Such a protection zone would have benefits for other marine animals as well, including northern sea lions, harbor porpoise, and Dall's porpoise calves which perish as a result of the entanglement with their mothers.

Congress has acted in the past on behalf of natural resources in need of special protection. In the case of the sea bird populations of the western Aleutians, your favorable consideration of S.62 may be the only practical vehicle for providing such protection from the adverse impacts of drift gillnets.

The agency responsible for issuing and conditioning driftnet permits declined to consider the compliment—excuse me—the concept of implementing a net-free sea bird protection zone.

The administrative law judge who has been involved in these permit procedures has declined to recommend the sea bird protection zone after the conclusion of the administrative law judge's review. But he did characterize the sea bird take in the gillnet operations as enormous and unacceptable.

And although he declined to recommend establishment of a 60 mile ecosystem protection zone, he said the idea may have merit and is an idea for Congressional and executive consideration.

Mr. Chairman, I would just like to summarize by saying that we are highly supportive of this bill. We think that the time for action is now, and I must add a rather personal note in consideration of earlier comments this morning.

The Center and I think a great many others who have had experience with negotiating additional conservation agreements with some of the fishing nations involved that precipitated the need for this bill do not believe that action should be delayed any longer.

Thank you very much.

[The statement follows:]

STATEMENT OF ROGER E. MCMANUS, CENTER FOR ENVIRONMENTAL EDUCATION

My name is Roger E. McManus. I am testifying for the Center for Environmental Education (CEE), a private non-profit marine conservation and education organization, of which I am President. We are concerned about the significant incidental take of marine birds and mammals by gillnet fisheries and we support S. 62 as one way to reduce that mortality. My testimony will describe: 1) the current incidental take of seabirds in North Pacific gillnet fisheries; 2) the impact of that mortality on

specific populations; 3) the positive mitigating effects that could be realized by the protection zone called for in S. 62; 4) the need for a Congressional remedy to protect seabirds, and 5) general comments in support of other provisions in the legislation.

The Center for Environmental Education conducts a variety of programs concerning endangered and threatened marine species and their habitats, nonrenewable and renewable marine resources and marine pollution. For the past five years the Center has been involved in the issue of entanglement of marine species in marine debris and by incidental take in active fisheries.

Entanglement is a complex marine conservation issue, requiring changes in public policy and government controls, comprehensive programs for species that need increased protection, and education of those who could voluntarily reduce certain problems by changes in attitudes and behaviors. CEE has been involved in all these aspects of the entanglement issue, and we have testified before this committee in the past, last year on the issue of seabird mortality in gillnets.

Our activities have included completion of a major study for the EPA on the marine debris problem, preparation of an atlas on all marine wildlife/fisheries interactions in North American waters, preparation of studies on the incidental take of particular species, including the Gulf of California harbor porpoise, seabirds, and sea turtles. We recently completed a six-month series of negotiations with the State of California, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service aimed at modification of fisheries regulations to provide protection for seabirds and marine mammals in California's coastal gillnet fisheries. Currently, CEE staff are working on a major education program aimed at industrial sources of marine debris, conducting a study of the problem of entanglement in marine debris in the Gulf of Mexico and New England coastal areas, and completing a study for the Marine Mammal Commission on the impacts of ocean debris in waters outside the United States. My testimony will draw upon data from these studies, which are included in a list of references for your further information.

Most recently, and most pertinent to the legislation before you, we were a party to the formal rulemaking on proposed regulations to govern the taking of marine mammals incidental to the Japanese Commercial salmon gillnet fishing operations in the U.S. exclusive economic zone. In addition to contributing information on the proposed quotas for marine mammal takes presented by the joint environmental parties, CEE developed testimony and legal arguments on the issue of the incidental take of seabirds by these fisheries.

The following remarks will draw extensively on the facts presented in CEE's testimony before the Administrative Law Judge in that proceeding, and particularly on a study, "Gillnet Mortality of Marine Birds," completed for CEE by Mr. Walter Reid of the Zoology Department of the University of Washington. I wish to emphasize that we are not commenting on the merits of the Judge's conclusions of law, but are merely reiterating our presentation of the facts on the incidental take of 21 species of seabirds by the mothership, land-based, and high seas fisheries.

Of the 21 species of seabirds taken in the drift gillnet operations, most are listed in the Convention for the Protection of Migratory Birds and Birds in Danger of Extinction, and their Environment, an international agreement between the U.S. and Great Britain, the U.S.S.R., Mexico, and Japan. (25 U.S.T. 3329, TIAS /990(1972). Under the agreement, 18 of the incidentally captured species are listed as protected birds for which no taking is permitted. One bird, the harlequin duck, is considered a "game" bird, and may be taken pursuant to hunting regulations; the two other non-game birds taken in the fishery, Cassin's auklet and dovekie, are not listed in the convention with Japan.

We will not discuss before this Committee the ramifications of the incidental take on the obligations of the parties to this treaty, but rather refer members to the record of the permit proceeding for a detailed discussion of the legal arguments.

We also urge the Committee to take note that seabird mortality was identified as an issue to be covered in the Draft Environmental Impact Statement (DEIS) preparatory to the formal rulmaking. The DEIS did address seabird mortality; however, comments on the draft as well as testimony presented at the hearing pointed out it was both inadequate and inaccurate. One of the DEIS's major failings was its failure to consider alternatives such as protective zones for reducing seabird and marine mammal mortality. Wheter comments on seabird problem areas are incorporated in the final EIS remains to be seen upon issuance of that document, expected this week.

1. Incidental take of seabirds in the North Pacific gillnet fisheries: The overall mortality rate of marine birds in the North Pacific gillnet fisheries is extremely high—roughly 800,000 birds per year. Of the five gillnet fisheries operating in the North Pacific, accurate mortality estimates for marine birds are available only for

the Japanese Mothership Fishery. Between 1981 and 1984, mortality rates ranged from 96,400 to 251,400 birds annually. Approximately 82% of this mortality occurred within the U.S. Exclusive Economic Zone (EEZ).

The total marine bird mortality incurred by this fishery will probably increase during the new proposed permit period, because the gradual phaseout of the Bering Sea portion of the fishery, and the concomitant increase in fishing intensity elsewhere in the mothership fishery, will shift fishing effort from areas of relatively low marine bird mortality rates to areas with high mortality rates.

Mortality estimates in the Japanese landbased fishery are based on less complete data, but are comparable to the mortality in the mothership fishery. It is estimated that an average of 1/1,000 birds were killed annually between 1975 and 1977, and 134,000 in 1983.

The Japanese, Taiwanese, and Korean squid fisheries have the potential for a considerably greater impact on marine birds than the salmon fisheries. In 1983, fishing effort in the Japanese squid fishery alone was nearly four times the combined effort of the land-based and mothership salmon fisheries. Unfortunately there are few data available concerning incidental mortality rates in the squid fisheries. The data that are available indicate that mortality rates (per unit of fishing effort) are between 20% and 50% of the rates in the salmon fisheries; these values are consistent with expectations based on bird distributions in the North Pacific. A rough estimate of mortality in the squid fisheries, based on the data avaliable, is approximately 400,000 birds annually.

The mortality estimates discussed above do not include birds which are killed in nets, but which drop out of the nets before they are retrieved. Although the U.S. Fish and Wildlife Service considers this a potentially important source of mortality, there are no data available to allow the estimation of the impact.

The mortality estimates also do not include birds killed in lost and discarded gill nets. Roughly 1,000 km of gillnet is estimated to be lost or discarded each year by the North Pacific gillnet fleets. This marine debris kills an unknown number of marine birds each year. Because of these two additional sources of mortality, the mortality rates for the North Pacific gillnet fleets are clearly underestimates.

2. Effects of gillnet mortality on specific seabird populations: Of the 21 different bird species that have been reported killed in the Japanese mothership gillnet fishery, three species, the Tufted and Horned Puffins, and the Short-tailed Shearwater, are killed in high enough numbers to justify concern over possible effects on population size. Approximately 100,000 short-tailed shearwaters are killed annually in the mothership fishery. These birds are wintering birds from colonies near Tasmania and Australia. Although the number of shearwaters killed in the fishery is extremely large, the actual impact of the bycatch on population size is probably relatively small because of the large breeding population size (nearly seven million pairs).

In contrast, there is strong evidence that Tufted and Horned Puffin populations are affected by the incidential mortality in the mothership fishery. The U.S. Fish and Wildlife Service compared the estimated incidental mortality of breeding birds in 1983 with breeding populations near the U.S. EEZ and estimated that 5% of the breeding Horned Puffins and 7-9% of the breeding Tufted Puffins were killed annually.

These values represent conservative estimates of the impact of the bycatch on population size because the impact of mortality on non-breeding birds on these local populations in not included. In another estiamte of the impact of the fishery on these species, the U.S. Fish and Wildlife Service calculated that 14.3% of Tufted Puffins and 28.8% of Horned Puffins observed at sea in the U.S. EEA were killed by the fishery.

Contrary to information presented in the Draft EIS prepared for the permit proceeding, there is strong evidence that the gillnet fishery within the U.S. EEZ has affected the local population sizes of species in the western Aleutian Islands. In commenting on the Draft EIS, the U.S. Fish and Wildlife Service pointed out that "* * * local populations of a few nesting species in the Western Aleutian Islands, particularly Tufted Puffins, have probably been negatively affected by the salmon fisheries. In addition, the cumulative impacts of all driftnet fisheries may be significant." (Department of Interior, Comments on DEIS for proposed permit allowing incidental take of Dall's porpoise, November 28, 1986, p. 3).

The Service further pointed out that while insufficient data on Western Aleutian seabirds make it difficult to evaluate the overall effects of the salmon fishery, the increased mortality on Tufted Puffins could affect the stability of the population. The incidental take, when added to natural mortality, would make it, "unlikely that survivorship of Tufted Puffins from fledging to breeding would approach levels nec-

essary to maintain a stable breeding population (approximately 40%)," according to the DEIS comments. (*Id.*, p. 4).

3. Positive Mitigating Effects of a Seabird Protection Zone: Data obtained from the U.S. Fish and Wildlife Service indicate that mortality rates of breeding birds within 60 nautical miles (nm) of land were five times higher than rates in the remainder of the U.S. EEZ and accounted form 49% of all breeding bird mortality. Fishing effort within this 60 nm zone accounts for 15% of the total effort within the U.S. EEZ. Because mortality rates of breeding birds are higher close to the islands it is possible to substantially reduce breeding bird mortality by shifting the fishery location away from the islands.

The cessation of mortality near the islands would result in a 49% decrease in mortality, but this would be partially counteracted by the concomitant increase effort away from the islands. Because mortality outside the 60 nm zone accounts for 51% of the total, a 15% increase in fishing effort away from the island would result in an 8% (0.15x0.51) increase in breeding bird mortality. The net savings to breeding birds would thus be a 41% (49%-8%) decrease in mortality. Moreover, because mortality rates of all birds, breeding and non-breeding, tended to decrease away from the islands, there would be a benefit for all species and age classes involved.

Based on analysis by Mr. Reid and the U.S. Fish and Wildlife Service, the imposition of a gillnet-free zone around the Aleutians would significantly reduce the effect of the fishery on breeding populations and would be beneficial for non-breeding birds as well. Such a zone would be particularly effective south of Agattu and southwest of Buldir Islands, areas of both high fishing effort and high marine bird catch rates (per unit effort).

Such a protection zone would have benefits for other species as well. In its initial brief on the proposed permit for North Pacific gillnet operations, the Marine Mammal Commission recommended the establishment of an ecosystem protection zone in which gillnet fishing is prohibited. Such a zone, the Commission reasoned, was merited to counter the "adverse environmental impacts in the area around the Aleutian Islands." (Initial Brief of the Marine Mammal Commission, NOAA/NMFS Docket No. MMPAH 1986-01, December 29, 1986, p. 60). Adverse impacts cited by the Commission included not only the incidential take of seabirds, but also "the increased likelihood of entanglement of northern sea lions and harbor porpoise, the indirect mortality of Dall's porpoise calves as a result of the entanglement of their mothers, and the biological and aesthetic problems caused by fishery." *Id.*

We refer the committee to the Commission's brief for a detailed description of the legislative history of similar actions Congress has taken in the past to conserve the maritime resources around the Aleutians.

4. The Need for A Congressional Remedy to Protect Seabirds: Congress has acted in the past of behalf of natural resources in need of special protection. In the case of the seabird populations of the Western Aleutians, your favorable consideration of S. 62 may be the only vehicle for providing such protection from the adverse impacts of drift gillnets. In a proceeding to regulate those driftnets, the agency responsible for issuing and conditioning driftnet permits declined to consider the concept of implementing a net-free, seabird protection zone.

Mr. Reid urged in this testimony that two points be stressed regarding the potential impact of the gillnet operations on marine birds. First, the magnitude of nontarget mortality, 13,000 birds per yer in the U.S. EEZ, or 800,000 birds per year in the combined North Pacitic gillnet fisheries, is excessive by any standards. We should seriously question the continuation of any fishing practice as wasteful as this.

Even The Administrative Law Judge characterized the seabird take in the gillnet operations as unacceptable. In his recommended opinion, Judge Hugh J. Dolan said: "The numbers of seabirds that are taken in this fishery are enormous. The record contains direct evidence that the drowning of these hundreds of thousands of seabirds by the Federation's gillnet operations is causing significant negative impact on several species. I find it unacceptable to assert that a taking of seabirds in these numbers is tolerable when the seabird species in question are listed in a treaty. * * *" (Recommended Decision of Hugh J. Dolan, Administrative Law Judge, U.S. Dept. of Commerce, March 6, 1987, p. 74).

Second, Mr. Reid points out that the cumulative impact of gillnet mortality in conjunction with other pressures including habitat loss, oil pollution, and hunting mortality, does represent a threat to these marine bird populations. Because gillnet mortality is one of the most manageable components of this cumulative effect, every effort should be made to reduce the impact. For marine birds breeding in Alaska, gillnet mortality is one of the most significant factors threatening populations, and it is the only factor than can be brought under our direct control.

Exacerbating the situation is the fact that marine birds have low reproductive rates and delayed reproduction, thereby weakening our ability to detect changes in their populations until too late. Moreover, the ability of marine bird populations to recover after a decline is low. These considerations, and the potential for alleviating them with the creation of a protected zone, were ignored in the permit as proposed, in the alternatives explored in the DEIS, and in the recommended decision.

The creation of a protected zone around the Aleutians was recommended by CEE in conjunction with the joint environmental parties, and echoed by the Marine Mammal Commission in its suggestion of a 60-mile "ecosystem protection zone." Although NOAA did not support the recommendation in the context of the permit proceeding, it stated that "such an approach offers interesting possibilities, and warrants further study." (NOAA Reply Brief, Docket No., MMPAH-1986-1, Jan. 9, 1987, at 20). In his recommended decision, Administrative Law Judge Hugh J. Dolan declined to recommend the establishment of a 60-mile ecosystem protection zone, but said: "the idea may have merit, and it is an idea for congressional and executive consideration." (Recommended Decision at 79).

Since the administrative proceedings that might have addressed this problem have not done so, we urge that the Committee support S. 62 and the creation of a 60-mile seabird protection zone around the Aleutian Islands.

5. General Comments in Support of S. 62 Although our testimony has concentrated largely on the effects of drift gillnets on seabird populations, CEE wishes to go on record in support of the other provisions of S. 62 as proposed. As mentioned in the introduction to our remarks, we have conducted a significant amount of research on the problem of marine debris and incidental take in active fisheries. These studies support the findings as stated in Section 2 that "the use of long, plastic driftnets is a wasteful, indiscriminate, and destructive fishing technique."

We would underscore the bill's finding that there is a need for more reliable information on incidental take and entanglement, and encourage the use of observers to document the occurrance of entanglement, and monitoring of lost, abandoned and discarded netting.

Lost and discarded netting is of particular concern with regard to North Pacific fur seals, which die in numbers as high as 30,000 per year because of entanglement in marine debris. The Pribilof Island population of this species is presently being considered for designation as a depleted population under the Marine Mammal Protection Act. For purposes of the permit proceeding discussed above, the population was treated as "depleted," so no permit for incidental taking of Pribilof Island fur seals could be granted.

It should be noted, as well, that the driftnet-free zone proposed as seabird protection could offer additional protection not only for fur seals, but also to sea lions, harbor porpoise, and other marine mammals.

In conclusions, we urge your support of S. 62 as a conservation measure which promises benefits to seabirds, marine mammals, and the ecosystem on which they depend. We thank you for the opportunity to testify today.

Senator ADAMS. Thank you, Mr. McManus, for your testimony.

We will go now to Mr. Mitchell. Mr. Mitchell, you are recognized.

Mr. MITCHELL. Thank you, Mr. Chairman, Senator Stevens.

I am Henry Mitchell. I am the executive director of the Bering Sea Fishermen's Association. We represent over 1500 salmon and herring fishermen in western Alaska, primarily from small villages, although I might add that AFMA, which is basically a Washington-based fishermen's organization that fishes in Bristol Bay, is also a member of our group.

Additionally, I am a director of the United Fishermen of Alaska, and the United Fishermen of Alaska represents 18 fishing groups representing 8,000 commercial fishermen. Also, a large number of those individuals are from the states of Washington, Oregon, and California.

The direct high seas salmon and squid fisheries of the nations involved here have created a conservation nightmare which threatens the integrity of the Northwest Pacific salmon industry.

Our fishermen primarily engage in commercial harvesting of the salmon resource, but it should be pointed out that the subsistence

and recreational salmon fishing are an important component of the social and economic considerations in Alaska, Oregon, Washington, and California.

The direct and incidental take of salmon on the high seas has affected and will continue to affect substantially the overall returns of salmons to their streams of origin and therefore harvest opportunities.

To understand the damage that is being done to fisheries in Alaska, I would concentrate on an example of western Alaska. You have to bear in mind that we are talking about very small villages with no other income opportunities. There are six salmon fishing areas in western Alaska. Bristol Bay—Senator Adams, you are probably familiar with the Bristol Bay fishery—is the largest and most sophisticated, involving hundreds of fishermen and millions of fish.

These hundreds of fishermen are from your state and Oregon. Actually, the numbers would be in the thousands when you consider all the different people involved. The remaining five fisheries are the Kuskokwin, Upper Yukon, Lower Yukon, North Sound, and Katzebue. They are small, primarily native, set or driftnet gillnet fisheries. Fishermen set and pick nets in small open skiffs ranging in size from about 18 to 26 feet. Depending on the area, fishermen may fish 300, 600, or 900 feet of gillnet.

Average incomes in these areas range from $5,000 to $11,000 per year gross, in an area with perhaps the highest cost of living in the nation. Most of those areas have costs of living approximately two to 2.5 times the cost of living in Anchorage, which is probably 30 percent higher than Seattle.

They depend on their small commercial catches and subsistence harvests for their cash and food in order to live. The only other alternative is dependence on government programs if there is no commercial fishery.

The high seas harvest of salmon is currently costing these smaller fisheries in western Alaska approximately $4 million to $8 million, based on the statistical catch rates provided by the foreign fishing operations. Yet, the reliability of those statistics provided is particularly suspect.

Let me give you an example of the impact of the high seas fisheries on the rate of return of salmon. In 1987, the Kuskokwin River king stocks will return in such low numbers that the Alaska Department of Fish and Game will manage this fishery for optimum escapement; No commercial harvest is projected at this time, which will reduce the commercial fishing incomes from $5,000 total to $3,000, relegating the fishermen there to catch merely dog and coho salmon. Returns of fall chum salmon on the Yukon River are at their lowest level in the last 15 years. No commercial fishery is projected and there will be substantially reduced subsistence fishing opportunities for the Eskimo and Indian villages of the Yukon.

The 1986 harvest in the Norton Sound area for kings, coho, and chum salmon was the lowest in the last seven years. As you can see, the in-shore runs are severely diminished. We believe the proliferation of high seas gillnet fisheries is responsible for this condition, based on all available data.

It is not hard to figure out what happened to the salmon. The salmon that western Alaska fishermen are trying to catch are beleaguered fish. Before our commercial and subsistence fishermen get a crack at them, there is a virtual gauntlet of high seas fisheries the fish must survive. The Japanese mother ship and land-based driftnet fisheries, however, are the primary ones that target salmon well known to be western Alaska stocks.

The mothership and land-based fleets together took a yearly average of about 100,000 western Alaska king salmon. The average catch of coho and red salmon was over 300,000. While these figures may fairly represent a rough approximation of the western Alaska fish caught by the Japanese high seas gillnet fisheries, they underestimate the number of fish that Alaska fishermen were deprived of. It is estimated that about 50 percent of the fish ensnared in the gillnets die and drop out of the net before it is picked. Double this figure of 700,000 and we see that the mother ship and land-based fleets are depriving western Alaska fishermen of probably a conservative two million king, coho, and red salmon annually. What about chum salmon? We estimate some 50—that is right, 50—times the total king salmon catch by the Japanese.

And you can be sure that this is not the only western Alaska that is suffering—that it is not only western Alaska that is suffering from this high seas fishery. Many of the catch originated in central Alaska. You may well have heard of the conflicts between commercial and recreational fishermen in central Alaska, especially on the Kenai River.

The Japanese high seas gillnet fisheries defy intelligent resource conservation use. The fishery is wasteful and the high mortality wastes about 50 percent of the fish caught. The fishery is inefficient use of the resource. The fishes caught on the high seas weigh about a third of what they would weigh by the time they reach the coastal fisheries. Finally, the fishery is perhaps illegal and amounts to nothing short of piracy.

Fisheries policy in Alaska gives priority in allocating fish to escapement to perpetuate the run. Second priority goes to subsistence users. Commercial users get third priority, except that the Japanese have jumped to the front of the line and have taken enough fish that the effects have been felt throughout Alaska, commercial and subsistence use and escapement. And I might note, in this period of discussing trade imbalance, the high seas fishery certainly contributes to a trade deficit with Japan.

The United States government's fisheries negotiators have been unable to obtain major concessions from the nations participating in the high seas fisheries. The primary reason for this seems to be that they lack sufficient data to convince those nations of the irreparable harm those nations' fishing practices are creating for our Alaskan fishermen. Simply for this reason, we see the Stevens legislation as a significant step towards guaranteeing the accumulation of data that will be persuasive to those nations. One clearly beneficial addition is the provision relating to negotiating the use of the Defense Department's satellites, since our greatest problem in the past has been extremely limited ship and plane coverage.

Bering Sea and United Fishermen of Alaska have been at the forefront of the fight to stop the high seas rape of American fisher-

ies for some time. I have attached to my testimony two resolutions recently adopted by UFA on the issue.

We expect that the Alaska legislature will soon restate their general support for stopping the high seas gillnet fisheries in a resolution supporting this legislation. We commend our Senator Stevens who, with the assistance of Senator Murkowski and Congressman Young, has steadfastly fought to protect American salmon stocks.

This legislation is a very important part of the overall effort to resolve this critical problem in the shortest amount of time.

All understand the immediate problems that the high seas gillnet fisheries are currently causing and the future devastation of American salmon stocks that will occur without prompt resolution. We ask Congress to understand and to act on the Stevens legislation promptly.

Thank you.

Senator ADAMS. Thank you very much, Mr. Mitchell, for an excellent statement. It was very comprehensive

Our next witness is Mr. Phelan. Welcome, Mr. Phelan. Nice to see you again.

Mr. PHELAN. Thank you, Senator.

My name is Dennis J. Phelan and I am a Vice President of the Pacific Seafood Processors Association. The Association is based in Seattle and the member companies operate processing plants in the Northwest and Alaska, primarily utilizing traditional species such as salmon, but also groundfish species, and some members have been getting into surimi.

I want to thank the Committee for holding this hearing today, and you Senator Stevens in particular for getting out in front on this issue last year and again this year, and not only on the driftnet issue specifically, but the entire issue of plastic pollution. Our members agree this situation is completely out of hand and something needs to be done immediately.

The Association testified on this issue back in October of 1985, and at that time we expressed our very strong concern about the harm which driftnet fisheries are causing. If anything, this concern has grown stronger since that hearing was held.

Driftnet fisheries are what can be referred to as dirty fisheries. The thousands of miles of net which are suspended in the waters of the North Pacific do not discriminate among the types of animals which are killed. Any creature encountering the net is at risk, including marine mammals, sea birds, and fish species other than those being targeted.

In addition, many of the fish which are trapped in the net are never recovered by the fishing vessel. It has been estimated that up to several million salmon each year are captured in the driftnets, but die and fall from the nets before they can be harvested.

This is extremely wasteful, harmful to the resource, and it makes the science of stock assessment even more difficult for our fishery biologists.

The next problem which stems from the use of driftnets has to do with lost netting. Pieces of netting, and indeed entire sections of netting, are frequently lost at sea. This netting, as research has shown, continues to kill a variety of marine animals as long as it is

in the water column. This type of "ghost fishing" kills an undetermined number of animals, but is certainly very destructive.

Marine organisms are not the only things threatened by driftnets. Lost nets have been known to entangle the propulsion gear of even very large vessels. Any skipper will tell you that there are few things more dangerous for a boat than being left dead in the water, and this is especially true in the conditions which are encountered in the North Pacific.

As you might imagine, the members of the PSPA are especially concerned about the economic impacts of both legal and illegal driftnet fisheries. The economic impact of the legal fisheries stems from their wasteful nature which I mentioned earlier.

However, it is the illegal salmon harvest which causes the most direct concern, since it results in additional salmon products being put on the world market in competition with the legally caught products that our members produce. During the past year there have been several well-publicized cases of illegally caught salmon being seized by U.S. authorities.

These salmon "laundering" operations, as they are called, have been traced back to the illegal harvest of North Pacific salmon. The fish is then shipped to the United States under a false label, where it is repackaged and sold overseas as a product of the United States.

While we do not know exactly how much of this illegal product is on the market, we do know that it hurts our members' ability to market their legal products, or at least reduces the prices that they are receiving.

We note that the Japanese driftnet fishery permit is now under review. We feel that the permitting process should be used to impose sharp reductions in driftnet activities. Similarly, we hope that the State Department will continue its efforts to restrict Taiwanese driftnet fisheries. Some progress has been made on that front, but especially in that area we need to do more since the Taiwanese have no right to be harvesting salmon.

Several changes have been made in this year's bill, and we would like to say that they all have our support. There is one in particular which I would like to address, and that is the addition of section 10, which makes it clear that the Act is not intended to be an extension of fishery jurisdiction.

We understand that some of our colleagues in New England were concerned about this last year, and we are hoping that the addition of this section will alleviate that concern. We feel that it would be a shame to have the bill fail again this year simply because of that one issue.

That concludes my comments on the driftnet issue, but if I could take just a moment I would like to put in a plug for a few Fisheries Service programs, as long as the oversight topic was raised here today.

The seafood industry in the Northwest and Alaska continues to feel that the most important function of the National Marine Fisheries Service is research, stock assessment, and management. That is where they should be focusing their attention.

Under the budget that has been proposed this year, those areas are very hard hit, and we hope that Congress will once again provide sufficient funds for those activities to be carried out.

The council funding situation in particular, as you gentlemen well know and as Doug Marshall knows in New England—is a big problem. The fact is that fishery management, simply because it has been around for a number of years, is not getting any easier. In fact, it has gotten more complicated, certainly in Alaska, as U.S. interests have taken over the fisheries.

For OMB and the Administration to say that simply because management plans are already on the books that this is a simpler process and should take less money just does not follow. As anybody on a council can tell you, it is often more difficult to put together a plan amendment than it was to put together the original plan.

Finally, I would like to add a special note of thanks to the Office of Industry Services at the Fisheries Service, which was very helpful in the recently concluded negotiations on fishery trade with the Japanese. We made some good progress on that front in getting additional products into Japan. At least we hope we made progress. Time will tell.

The contribution of the people at the Fisheries Service in terms of research, backup and data on that was instrumental in the success of the agreement, and we hope that they will continue to be fully funded.

Thank you.

[The statement follows:]

STATEMENT OF DENNIS J. PHELAN, VICE PRESIDENT, PACIFIC SEAFOOD PROCESSORS ASSOCIATION

Good morning, I am Dennis J. Phelan, Vice President of the Pacific Seafood Processors Association. The Association greatly appreciates being asked to present its views on the subject of high seas driftnet fishing. This issue is of major economic and ecological importance, and we are glad the Committee is investigating the topic. This process must lead to corrective measures in the near future.

I would like to take just a moment to describe the membership of the Pacific Seafood Processors Association. The companies which comprise PSPA operate primarily in Washington and Alaska, and produce a wide variety of seafood products including salmon, crab, shrimp and a number of bottomfish species. Several members are also in the process of entering the surimi business.

The purpose of the Association is to provide a forum for communication among the members on matters of common concern, and to provide input to federal, state and local decisionmakers on issues of interest to Association members.

The extensive use of high seas driftnets by foreign fishing nations represents a serious threat to the fishery conservation and management efforts of the United States, and we agree with the Committee that the situation should be thoroughly investigated.

It has been estimated that each day during the peak fishing season in the North Pacific over 20,000 miles of driftnet is set by three nations: Japan, Korea and Taiwan. The principal species being targeted are salmon, squid and marlin, and the various fishing seasons last from forty to seventy days.

It is difficult for anyone to imagine 20,000 miles of netting being set in a day. In order to visualize what this really means, picture the entire 6,640-miler coastline of the State of Alaska being enclosed by a wall of netting. Now picture it being enclosed a second and third time. That is how much driftnet is being deployed each day in our coastal waters.

Now, if all this fishing activity were being closely monitored and regulated the problems caused by such massive amounts of fishing gear could be limited. Unfortunately, this is not the case. A good portion of this fishing is totally unregulated, and the majority is carried out without effective enforcement of whatever rules might be

in place. Because of this we have little information about what the actual impacts of these fisheries are, not only on fish stocks but also on wide variety of marine life.

Adding to this already serious problem is the fact that an estimated 600 miles of netting are lost or discarded at sea each year. Once again, to help visualize what this means picture a continuous line of netting stretching from Washington, D.C. to Chicago. That is what these foreign nations are leaving strewn around the North Pacific each year, both through accidental loss and intentional dumping.

The effects of this lost netting are insidious. The hundreds of pieces of netting which are lost continue to "ghost fish" until they are finally washed ashore. Conservative estimates have been made that the combination of actively fished driftnet and lost gear is killing several million salmon each year which simply sink to the ocean floor where they rot. The question of whether high seas driftnet fisheries are taking salmon legally or illegally is one question, but the fact that they are killing and wasting millions of fish is quite another.

It is worth noting that after many years of tough negotiations the United States and Canada concluded a Pacific salmon treaty in 1985. This treaty requires sacrifices of both sides in order to conserve and rebuild certain depressed salmon stocks. If these sacrifices are to be of any value we must make sure that millions of salmon do not continue to be lost in a destructive fishery, thereby undoing the progress expected from the treaty.

Another very serious danger posed by these massive amounts of netting being discarded at sea involves oceangoing vessels of all kinds. Numerous cases have been reported of netting fouling the propulsion gear of vessels, and, in some cases, leaving the ship dead in the water. Given the harsh conditions in the North Pacific such an event could well be life threatening for the crew aboard such an unlucky vessel. This is yet another reason why this problem must be addressed quickly.

The last impact of high seas driftnet fishing which I would like to mention is an economic impact, and it is of particular concern to the members of PSPA. The market for canned and frozen salmon is a world market, and the companies which belong to PSPA are major participants. We can say with great assurance that millions of salmon are being taken illegally in these high seas driftnet fisheries, and that this illegally caught salmon is showing up on the world market in competition with legally produced American salmon. There have been several well publicized cases of salmon "laundering" during the past year. In these cases federal authorities have brought charges against companies which have used deceptive practices to package and sell illegally caught U.S. origin salmon. Unfortunately, those who have been caught represent only a small percentage of the total amount of illegally caught salmon which is finding its way into foreign markets. The member companies of PSPA feel the bite of this illegal competition every day, and this is yet another reason why we contend that immediate steps must be taken to rein in this destructive activity.

There is another economic impact which is less obvious but still very damaging. This is the dropout rate for salmon which are lost during driftnet fishing operations. It has been estimated that perhaps up to several million salmon become trapped in foreign driftnets, die, and then fall to the ocean floor before the net is hauled in. This type of wastefulness also impacts American user groups since it results in fewer salmon being available for domestic fisheries.

One step which could be taken to lessen the impacts of high seas driftnets is to require foreign fleets to meet the same regulatory standards as U.S. fishermen. For over a decade, American fishermen have been required to conduct fishing operations in a manner which will minimize the taking of marine mammals and other non-target marine life. The law has been successful in meeting this goal. Unfortunately, we once again encounter a situation where federal regulations which govern U.S. fishermen are not applied to the foreign fleets. For reasons of both ecology and simple fairness this situation must be corrected.

Although we have a fairly good idea of the scope of the problem, we are faced with two questions: What is to be done, and what leverage do we have to achieve a solution?

The Pacific Seafood Processors Association feels that in light of the extremely destructive nature of high seas driftnet fisheries they should be banned altogether, both inside and outside the fishery conservation zone. Within the FCZ this can be done through new laws or regulations. On the high seas it will have to be accomplished through negotiation. Such negotiations will be very difficult, but they are essential.

As for the question of leverage to be used in persuading the foreign nations to cooperate, we feel that there are several options.

First, Japan has extensive salmon fishing rights within the U.S. Fishery Conservation Zone. This fishing currently takes place under the authority of a legislatively approved marine mammal permit. This permit was granted in 1982 on the condition that Japan implement new fishing methods which would sharply reduce the incidental kill of marine mammals. The process for renewing this permit is now underway and we hope that if the permit is renewed it contains restrictions which will minimize the adverse impacts of these fisheries. The permitting process is the best time for us to exert our influence over the conduct of driftnet fisheries.

As far as Taiwan's high seas catch of salmon is concerned, diplomatic progress has been made in moving the Taiwanese squid driftnet fishery to an area which will minimize its impact on North American salmon. Since the parties to the INPFC do not recognize that Taiwan has any right to take salmon whatsoever, this progress toward the objective of zero interceptions is most welcome. This effort must continue.

In addition to the normal process of diplomacy we would also like to suggest that other leverage be considered. For instance, the possibility of cancelling Governing International Fishery Agreements has been suggested. Another powerful deterrent to future interceptions would be imposition of the Pelly Amendment to the Fishermen's Protective Act. Use of this sanction would prohibit the importation of fishery products into the United States from the nation it is imposed against. This would obviously be very effective against Japan, Korea or Taiwan.

Let me take just a minute to discuss some of the changes in S. 62 as opposed to last year's legislation. Section 4(a)(3) has been changed to say that enough observers must be present to ensure, with 95% confidence, that we are getting an accurate estimate of the numbers of animals being impacted by driftnet operations. We have no objection to this language.

Section 4(c)(2) says that if a nation fails to negotiate a bi-lateral agreement on driftnet monitoring within one year after enactment, that such nation will no longer receive direct fishery allocations in the U.S. Fishery Conservation Zone. Further, this section has been changed to say that similar action regarding prohibition of joint venture purchases by such a nation will not take place until the nation has failed to negotiate an agreement for a period of two years. We have no objection to this additional protection for U.S. joint venture fishermen, although we hope that our government will, nevertheless, pursue negotiation of these agreements vigorously.

Section 8 of the bill discusses methods which can be used to monitor for foreign driftnet fleets. It is our understanding that one of the methods being proposed is remote sensing satellites. We strongly support the use of this technology for monitoring purposes and an efficient and cost effective use of space technology.

In Section 9 the Secretary is given the discretion to alter the boundaries of the seabird protection zone as long as such an alteration will provide no less protection for seabird populations. We support this change.

Finally, a new Section 10 has been added which states that nothing in the Act is intended to be construed as an extension of our fishery management jurisdiction. S. 62 simply calls for a cooperative effort to monitor and assess the impact of driftnet fisheries. It is our understanding that some domestic fishing groups were concerned about this point, and we hope that this change, which we support, will allay their fears.

To summarize, PSPA members have witnessed the growth of foreign high seas driftnet fisheries with alarm. Their many negative effects must be realistically assessed and dealth with. We hope that the Committee will consider what it hears today and use it as the basis of swift action to outlaw this destructive form of fishing. A cooperative effort by the Congress and the Administration should be able to accomplish this difficult but much needed goal.

Thank you for the opportunity to appear today. I'd be glad to answer any question.

Senator ADAMS. Thank you, Mr. Phelan, for your excellent testimony.

Mr. Reichman, you are recognized.

Mr. REICHMAN. Thank you.

I am Alan Reichman. I am a resident of Seattle, I am coordinator of Greenpeace's North Pacific Ocean Ecology Campaign. In addition to the organizations listed in my written version, this testimo-

ny is also being presented on behalf of the American Cetacean Society and the Oceanic Society.

I would like to take the opportunity to thank you, Senator Adams, for chairing this portion of the hearing, and also Senator Stevens for introducing S. 62. Greenpeace wholeheartedly supports S.62, and, in fact, we view this as one of the most important environmental bills to be introduced to the 100th Congress.

The high seas driftnet fisheries of Japan, Taiwan, and the Republic of Korea pose significant threats to a wide range of marine species in the North Pacific Ocean and the Bering Sea. The seven to 30 mile long plastic driftnets used by the fisheries are hindering effective fisheries management and causing widespread mortality of marine mammals and sea birds.

To give us an idea of the scop of these fisheries, approximately 1,600 vessels now are deploying these destructive nets in the North Pacific, principally to catch salmon and squid. The longest of these nets could stretch all the way from this hearing room to Dulles International Airport. Over one million miles of driftnets are set each year by the fisheries.

It is clear, certainly as two panelists have pointed out this morning, that we need very badly to curtail the interception of U.S. origin salmon by these fleets in order to preserve the productive salmon fisheries that could assure the future vitality of the West Coast and Alaska salmon fishing industry.

During 1986 and 1987, the National Marine Fisheries Service enforcement activities seizing illegally caught salmon for laundering and transshipment to Japan illustrate what has long been feared, that some of these squid driftnet fisheries are often targeting salmon.

And in view of the fact that salmon resources are of such high economic and even cultural value to our nation that our government is currently spending in excess of $10 million annually for salmon conservation, enhancement, and hatcheries in the western states alone, we urgently need to solve this problem.

In essence, right now we are subsidizing the fishing industries of Taiwan, Japan, and even possibly South Korea, and that has got to be brought to a halt.

Also, tens of thousands of marine mammals are being killed incidentally by the pelagic driftnets each year during the actual fishing operation. This high mortality does not even include the deaths resulting from floating debris from abandoned and lost nets and so forth.

This represents one of the largest causes of marine mammal mortality in the North Pacific today. And scientific evidence that was presented at the seven day long Department of Commerce administrative hearing that was held in Seattle last December indicates that the combined impacts of the salmon and squid driftnet fisheries could very well be jeopardizing the viability of the Dall's porpoise population in the western North Pacific.

Indeed, National Marine Fisheries Service scientists have reported that approximately 80 percent of the female samples of Dall's porpoises collected in the U.S. observer program in the mother-ship salmon driftnet fishery are pregnant and/or lactating.

We really have to realize that sound wildlife management policies just would not permit the taking of animals vital to reproduction. Yet this driftnet fishery has been permitted to operate in a Dall's porpoise breeding and calving area.

And furthermore, limited data indicate that the squid driftnet fisheries are causing the incidental mortality of other marine mammal species, such as northern fur seals, northern right whale dolphins, common dolphins, and Pacific white-sided dolphins.

For example, last summer an NMFS observer who viewed 30 operations of a Japanese squid vessel recorded the mortalities of 59 dolphins and porpoises and 14 northern fur seals.

While the data is not sufficient—and that is because we do not have any reliable monitoring program for the squid fisheries at this time—this can be extrapolated to indicate a kill of over 100,000 dolphins and porpoises and 25,000 northern fur seals annually by these squid driftnets. And indeed, it has really become apparent with that observer report that the squid fleets could possibly be a significant cause of the continuing decline of the Pribilof Islands population of fur seals, which is still declining at a rate of 6.5 percent per year.

And this information recorded during observation last summer does not even include the marine debris caused mortality. This only includes incidental take during the fishing operation.

In view of all these facts, Greenpeace, and many other conservation organizations, really believe that passage and implementation of S.62 is needed, because it could provide a foundation to gain reliable and effective monitoring of these squid driftnet fisheries so that we can really assess the possible impact of these fisheries on our salmon resources, fur seals, and dolphin and porpoise species.

I think in the face of the limited data that we have, that it is crucial that we move on with these measures.

Greenpeace also strongly supports the bill's proposed development of a 60 mile sea bird protection zone around the Aleutian Islands. And as Mr. McManus pointed out, not only would such a measure protect the breeding colonies of puffins and other sea birds, but it could serve to protect the breeding and calving area of the Dall's porpoise.

And moreover, the net bounty system proposed by the bill, as well as the net marking, registry, and identification system, could potentially reduce the loss and discard of the hundreds of miles of nets that are being lost or abandoned each year.

And in the face of the plastics plague in the North Pacific, S. 62 really could provide for at least assessing the feasibility of moving on some programs to bring those abandoned and lost nets in and stop them from being distributed in the marine environment in the first place.

In conclusion, S. 62 represents important and critically needed environmental legislation that could serve to protect the marine ecology of the North Pacific from the hazards of pelagic driftnets.

On behalf of Greenpeace and seven other national conservation organizations, I urge the Senate to take expedient action to pass and implement S. 62, so we can work towards the protection of marine mammals, sea birds, and marine turtles, and, as important-

ly, the preservation of the long term viability of salmon and other fish resources.

Thank you very much.

[The statement follows:]

STATEMENT OF ALAN REICHMAN, NORTH PACIFIC OCEAN ECOLOGY COORDINATOR, GREENPEACE

Good morning Mr. Chairman and Members of the Subcommittee. I am Alan Reichman. I am a resident of Seattle, and am the coordinator of Greenpeace International's North Pacific Ocean Ecology Campaign. Greenpeace is an international environmental organization with offices in seventeen nations and approximately 1.2 million supporters, including 500,000 in the United States. I appreciate this opportunity to testify on behalf of Greenpeace with regard to the pelagic driftnet fisheries. This testimony is also being presented on behalf of the Animal Protection Institute of America, the Humane Society of the United States, the International Wildlife Coalition, the Society for Animal Protective Legislation, and the Whale Center.

As an organization working for the preservation of the environment, Greenpeace wholeheartedly supports the expedient passage into law of Senate Bill 62: "the Driftnet Impact Monitoring, Assessment, and Control Act."

The high seas driftnet fisheries of Japan, Taiwan, and the Republic of Korea pose threats to a wide range of marine species in the North Pacific Ocean and Bering Sea. The 7 to 30 mile-long plastic driftnets used by the fisheries hinder effective fisheries management and cause widespread incidental mortality of marine mammals and seabrids. The destructive utilization of pelagic driftnets by these fisheries has escalated since the late 1970's.

At this critical juncture, we mnust act to halt the escalation, gain effective monitoring, implement protective measures—and move towards a phase-out of the pelagic driftnet fishing technology.

THE DRIFTNETS CRISIS

The marine environmental problems associated with the North Pacific pelagic driftnet fisheries have prompted rising concern in government, the scientific community, the U.S. fishing industry, and the general public.

Pelagic driftnets are large-scale monofilament plastic gillnets that are deployed in the open ocean. A standard gillnet is a panel of strong plastic webbing suspended vertically in the water by floats at the top of the panel and weights at the bottom. The nets drift for hours at a time and are non-selective in their catch. Pelagic gillnest are effective curtains of netting through which nothing larger than the opening in the mesh can pass. Indeed, the pelagic driftnet technique represents a destructive fishing technique that is not conducive to sound fisheries or ocean ecosystem, management.

In the North Pacific, Japan operates approximately 1500 vessels utilizing driftnets to catch salmon, squid, billfish, pomfret, and albacore. In addition, Taiwan conducts a squid driftnet fishery involving approximatley 130 vessels, and the Republic of Korea operates approximately 100. The length of the nets generally range from 7 to 30 miles. The longest of the nets would stretch from the Capitol Building all the way to Dulles International Airport. One calculation of the total volume of driftnet utilized is staggering: 20,500 or more miles of net are deployed each day of the fishing season for a total of at least 1,065,500 miles each year. While information concerning the impacts of the fisheries is limited because the vast majority of the fisheries are not monitored or regulated by any international fisheries management regime, available data indicate an ecological crisis of major proportions.

Fisheries

It is clear that curtailing the interception of U.S.-origin salmon by pelagic dritfnet vessesls would serve as one step to preserve productive salmon fisheries that could assure the future vitality of the West Coast and Alaska salmon fishing industry.

Salmon resources are of such high economic and cultural value to the U.S. that the federal government is currently spending in excess of $10 million annually for salmon conservation, enhancement, and hatcheries in the Pacific Northwest states alone. In essence, we are now subsidizing the fishing industries of Japan, Taiwan—and, possibly South Korea.

The appendix to the "Draft Envionmental Impact Statement and Economic Impact Analysis on the Incidental Take of Dall's Porpoise in the Japanese Salmon

Fishery" (DEIS) which provides an Economic Impact Analysis on the General Permit, and studies by the Unversity of Washington Fisheries Research Institute (FRI), indicate significant interception of North American-origin chinook, sockeye, chum, and coho salmon by the Japanese mothership and land-based salmon dritfnet fleets. Recent developments also indicate that the unregulated squid driftnet fisheries also catch significant quantities of salmon.

High seas salmon fishing is unsound becase it involves the harvesting of mixed stocks from numerous rivers of origin, and take of immature fish. Scientists also estimate considerable loss of salmon as a result of "non-catch mortality" which occurs when fish which are killed during the netting process drop out of the nets before they reach the fishing vessel. Dr. R.L. Major of FRI has estimated that one immamture salmon is lost for every one taken live, while one adult is lost for every three adults caught. Indeed, salmon stocks can be conserved and managed more effectively if they are harvested by inshore fisheries.

Unfortunately, the April, 1986 amendment to the International Convention for the High Seas Fisheries of the North Pacific Ocean—administered by the International North Pacific Fisheries Commission (INPFC)—will only provide very limited mitigation of the interception problem posed by the Japanese high seas salmon driftnet fisheries. The State Department did not fulfill its promise to gain substantial reductions of Japanese salmon driftnet fishing in the North Pacific through 1985–86 U.S.-Japan bilateral negotiations.

At the October, 1985 U.S. Senate oversight hearings on the pelagic driftnet fisheries. Edward Wolfe, Deputy Assistant Secretary for Oceans and Fisheries Affairs, stated that "the State Department views the high seas drift gillnet fishing as wasteful," and explained that the Department would work through the negotiations process to gain mitigation. However, the bilateral agreement which was commenced in April, 1986 cannot be viewed as a significant improvement. It merely involves a 1 degree shift westward of the boundary of the land-based fishery, and a minor phase-out of the mothership fishery from international waters of the Bering Sea (with a slight fishing increase elsewhere) by 1994.

Moreover, the conservation community was excluded from participation on the U.S. delegation to the negotiations. Therefore, the issues of marine mammal and seabird mortality were not even considered during the negotiations which determined boundaries for the fisheries. Legislation is now necessary to provide protective measures—such as the seabird protection zone around the Aleutian Islands—which could have been developed during the U.S./Japan negotiations, but were not.

Recent enforcement activities by the National Marine Fisheries Service (NMFS) illustrate that the squid driftnet fisheries also pose dramatic threats to U.S.-origin salmon recources. Indeed, some vessels ostensibly using driftnets to take squid in international waters in fact may be illegally targetting salmon. Such activity represents violations of the Magnuson Fishery Conservation and Management Act (FCMA) as the Act provides for "exclusive U.S. fishery jurisdiction over all anadramous species throughout the migratory range of each such species beyond the Fishery Conservation Zone (FCZ)."

Last year, in Tacoma, WA., NMFS seized 600,000 pounds of salmon caught by the Taiwanese driftnet fleet which had been lanudered for illegal export to Japan. In February of this year, agents seized 208,000 pounds of frozen salmon in Bellinghan, WA., 179,633 pounds in Oakland, CA., 159,533 in Riverside, CA., and 20,000 pounds in Watsonville, CA. The origin of the salmon involved in this year's seizure is uncertain. It is apparent that these incidents represent only a small percentage of the illegally caught salmon that is redirected for export to Japan. Japan does not import salmon directly from Taiwan, for example, because that nation does not have anadramous salmon stocks.

The overall efficiency of the pelagic driftnet technique could pose threats to the viability of other fish stocks including squid, billfish, and albacore which are targetted by the unregulated driftnet fisheries. Thousands of miles of nets repeatedly set in the same areas are capable of collapsing even the indeterminable stocks of the North Pacific within the foreseeable future. A similar fishery, the Danish salmon driftnet fishery of the western North Atlantic, was terminated in 1976 because of its adverse impact on the long-term viability of Atlantic salmon stocks.

S. 62 would provide a framework for reliable cooperative monitoring and assessment of the currently unregulated squid, billfish, and albacore driftnet fisheries. It is critical that such monitoring begin as soon as possible to prevent the interception of U.S.-origin salmon, and protect the sustainability of species such as squid, billfish, and albacore. Expedient commencement of this measure is economically and ecologically cruical.

Marine mammals

Tens of thousands of marine mammals are killed incidentally by actively fished pelagic driftnets each year. This incidental take—and the associated mortality of marine mammals resulting from discarded and lost fishing gear and marine debris—are the largest unnatural causes of marine mammal mortality in the North Pacific today.

Greenpeace and a number of other conservation organizations are parties to the current administrative action regarding the Federation of Japan Salmon Fisheries Association's application for renewel of its General Permit to take Dall's porpoises incidental to the salmon mothership fishery in the FCZ under the Marine Mammal Protection Act (MMPA). We participated in administrative hearings which were conducted in Seattle, December 1-7, 1986, and are now awaiting the National Oceanic and Atmospheric Administration's final decision.

The record of the administrative hearing illustrates the threats the driftnet fisheries pose to marine mammal populations. The scientific information presented at the hearing by a wide range of marine mammal scientists indicates that the combined impacts of the salmon and squid driftnet fisheries could well be jeopardizing the viability of Dall's porpoise populations.

On March 6, Department of Commerce Administrative Law Judge Huge J. Dolan issued a recommended decision calling for a marked reduction in the Japanese Dall's porpoise kill quota: from 5,500 to 1,750 during the 1987 salmon fishing season, with a 5 percent quota reduction each year for the duration of the General Permit.

Judge Dolan's decision is based on analysis of evidence presented at the hearing which indicates that a take above the quota could cause the Dall's porpoise population in the western North Pacific to decline below its optimum sustainable population (OSP).

Furthermore, NMFS scientists have reported that approximately 80 percent of female samples collected in the U.S. observer program in the mothership salmon fishery are pregnant and/or lactating. This indicates that the fishery operates in a breeding area for the Dall's porpoise. Sound wildlife management policies would not permit the taking of animals vital to reproduction, yet this fishery has been permitted to operate in a breeding and calving area.

Information presented at the Seattle hearing also illustrated that the 6 percent observer coverage of the salmon mothership fishery has been inadequate. Such sparse coverage has possibly allowed the fishery to manipulate the observer program by grouping observers on vessels operating in the same area, and surrounding those vessels with others so as to limit the observed mortality of non-target marine mammals and seabirds, and the observed taking of U.S.-origin chinook salmon.

Judge Dolan recommended that the number of observers on catcherboats be set to assure a 95 percent confidence level with a variation of plus or minus 4 percent: the level of observer coverage that S. 62 would also mandate. Statistically, this would require an increase from 6 percent coverage to at least 24 percent. This increase in coverage would provide for more randomness in the sample and greater data reliability, and could curtail Japanese efforts to manipulate the observer program.

The limited information available indicates that large numbers of other marine mammal species, as well as Dall's porpoise, are being taken incidentally by the squid driftnet fisheries. An FRI report of an observer's 1981 monitoring of a Japanese squid driftnet vessel reports the mortality of 11 common dolphins and 7 northern right whale dolphins (although it is possible that some of the specimens could have been Pacific whitesided dolphins) which resulted from 11 driftnet deployments. If this figure is multiplied times the approximate 53,000 sets the squid fleets deploy annually we derive an approximate mortality figure of 84,000 dolphins.

These findings were reinforced by information obtained by a NMFS observer aboard a Japanese squid vessel last summer. During 30 operations, using 18 to 25 miles of driftnet each, 43 northern right whale dolphins, 14 northern fur seals, 8 Pacific white-sided dolphins, 7 Dall's porpoises, 1 striped dolphin, and 1 leatherback turtle were observed to have been taken. While this information is limited, because there is currently no extensive observation and monitoring of the unregulated squid fleets, it provides a warning flare that there is a dire need for protective measures to preserve populations of northern fur seals and small cetacean species.

Fifty-nine dolphins and porpoises were taken: a rate of almost 2 small cetaceans per set. This can be extrapolated to signal a take of over 100,000 small cetaceans per year by the squid fisheries.

Perhaps most critically, these observations represent a take rate of .47 northern fur seals per set, which could be extrapolated as a take of approximately 25,000 seals annually. If such extrapolations are accurate the squid fleets could be a signifi-

cant cause of the continuing decline of the Pribilof Islands stock of northern fur seals. NMFS scientists estimate that the population is declining at a rate of 6.5 percent annually, and the agency is currently in the process of designating the stock as depleted under the MMPA.

These observer reports provide reason for grave concern and illustrate the urgency for extensive monitoring, and mitigation. The potential implications for the northern fur seal, for example, provide yet another reason why remedial action must be taken immediately.

Seabirds and marine turtles

Pelagic driftnets also cause high mortality of seabirds. When seabirds dive into driftnets for fish, their feet or wings become entangled in the top few meters of the plastic panels and they drown.

The DEIS estimates that seabird mortality resulting from the mothership salmon fishery varied from about 96,400 seabirds in 1983 to 251,400 in 1984. In 1984, the offshore portion of the land-based salmon fishery is estimated to have taken approximately 134,000 seabirds. Thus, the combined take by both salmon driftnet fisheries is extremely high. Twenty-one species have been impacted with short-tailed shearwaters, tufted puffins, horned puffins, crested auklets, and thick-billed murres bearing the greatest pressure.

Judge Dolan, in his recommended decision states that: "The numbers of seabirds that are taken in this fishery are enormous. The record contains direct evidence that the drowning of these hundreds of thousands of seabirds by the Federation's gillnet operations is causing significant negative impact on several species. I find it unacceptable to assert that a taking of seabirds in these numbers is tolerable when the seabird species in question are listed in a treaty entitled a 'Convention for the Protection of Migratory Birds in Danger of Extinction'."

Nevertheless, Judge Dolan found that it is not the responsibility of the Department of Commerce to address the hazards to seabirds caused by the salmon driftnet fisheries. He did, however, recommend that Congress and the Executive Branch consider development of a 60-zone around the Aleutian Islands to protect the breeding colonies of puffins and other seabirds, and other marine species: "I do not question the potential merits of such a plan, but I do question the process. The creation of such a 60-mile Ecosystem Protection Zone could serve to further the purposes and policies of the MMPA. * * * The idea may have merit, and it is an idea for congressional and executive consideration."

Scientists support S. 62's proposed establishment of the seabird protection zone as a means to reduce mortality of breeding puffins, murres, and other seabird species. Local populations of these species around the Aleutian Islands have been adversely affected.

Dr. Walter Reid of the University of Washington Department of Zoology reports that mortality rates of breeding birds within 60 miles of land are five times higher than those in the remainder of the FCZ and account for 49% of all breeding bird mortality. Shifting fishing effort away from the Aleutian Islands would bring about a 41 percent reduction in mortality. The protection zone would therefore reduce seabird mortality and benefit the entire ecosystem by maintaining nutrient recycling that can increase marine productivity. Protection of the seabird populations would benefit the entire food web of the North Pacific Ocean and Bering Sea.

The Atlantic salmon driftnet fishery which was operated by Denmark represents an example of the devastating impact this technology can have on seabird populations. That fishery is estimated to have killed 500,000 murres annually, which resulted in a population crash of the species before the fishery was terminated. It is time now to take action for the puffins and other seabirds of the Aleutian Islands by expediently implementing development of the seabird protection zone.

The squid driftnet fisheries may also have considerable impact on seabird species. While data are limited, the squid fisheries could cause high mortality of different seabird species that migrate through various portions of their ranges. Dr. Reid estimates that during 1983, for example, over 400,000 seabirds were taken incidentally by these fisheriers. His estimation is based on catch rate data and information on seabird density throughout the fleet's ranges.

Driftnets deployed by the squid and billfish fisheries in the central North Pacific may possibly be causing the mortality of sea turtles. As air breathers, sea turtles spend much time at the ocean's surface: where driftnets are deployed. Dr. G.H. Balazs of the Honolulu office of of NMFS reported in "Impact of Ocean Debris on Marine Turtles: Entanglement and Ingestion" that: "It is apparent that sea turtles are prone to all kinds of entanglement as a result of their body configuration and

behavior." All sea turtle species are listed as endangered or threatened under the Endangered Species Act.

The marine debris problem

Increasing attention has been drawn to the striking problems associated with entanglement and ingestion resulting from plastics and other debris floating in the oceans. While diverse sources—including navies, merchant vessels, and trawl and other fisheries—contribute to this situation, it is apparent that the pelagic driftnet fisheries are also a major factor.

Mr. Masayuki Komatsu, a representative of the Government of Japan, testified at the administrative hearing that approximately 0.05 percent of driftnet deployed by the Japanese fisheries is lost-at-sea. While a higher figure, 0.06 percent, has been provided by NMFS, the following calculations are based on this conservative figure provided by Japan.

When the 0.05 percent figure is applied to the rate of driftnet deployments, the total volume of net lost is staggering. In 1985, according to figures provided by the Fisheries Agency of Japan, 187,830 kilometers of net were deployed by the mothership and land-based salmon fisheries, while 1,053,930 km. were deployed by squid vessels: a total of 1,241,760 km. of driftnet. Thus, a total of 621 km. (or 388 miles) of plastic driftnet was lost or discarded by the Japanese driftnet fisheries in 1985 alone (this does not include the Taiwanese and Korean squid fisheries). Such a quantity of netting could stretch almost all the way from the Nation's Capital to Boston, Massachusetts!

Since the driftnets are non-biodegradable they persist in the marine environment for long periods of time. Observations of entangled marine life have demonstrated that these "ghost nets" are capable of continuing to catch fish, marine mannals, and seabirds for long periods of time.

Lost and abandoned driftnet could even pose a threat to human life. For instance, a report by Craig Hammond of NMFS, "Derelict Gillnet Reported to NMFS, Alaska Region in 1983," described how the fishing vessel "Westward Wind" was disabled when its propellers and shafts became entangled in a 3 to 5 mile long driftnet fragment, causing it to drift at sea.

Congressional action to control the use of pelagic driftnets would serve to diminish this source of plastic marine debris.

SOLUTIONS AND ACTION

Senate bill 62

While Greenpeace supports a multi-year phase-out of the North Pacific pelagic driftnet fisheries, we view S. 62 as a first step towards a permanent and effective solution to the driftnets crisis.

Expedient passage and implementation of S. 62 would provide a sound foundation for remedial action and the development of monitoring and controls to diminish the driftness hazards affecting the North Pacific. All elements of the legislation could serve to provide means to mitigate hazards associated with the driftnet fisheries.

In the case of the Japanese salmon driftnet fisheries, S. 62 incorporates some of the measures that Judge Dolan recommended, such as sufficient observers on board vessels to obtain 95 percent confidence level on the mortality of marine mammal's seabirds, and other species. It would also provide the 60 mile MMPA Ecosystem Protection Zone (seabird protection zone) around the Aleutian Islands.

The U.S. Marine Mammal Commission (MMC), in its initial brief in the matter of the administrative permit proceeding, advocates that the establishment of such a zone could serve to not only aid breeding seabrid colonies, but marine mammal species as well. Such a protective zone could protect harbor porpoises, northern sea lions, an Dall's porpoises, particularly pregnant and lactating Dall's propoises. The MMC argues that the 60 mile zone would serve Congress's mandate to protect the Aleutian Islands: "Congress sought to protect the resources of the Aleutian Islands in 1980 when it established the Alaska Maritime National Wildlife Refuge. Numerous Islands in the Aleutian chain are part of the Refuge, including many are within or close to the mothership fishery zone."

The measures that could provide reliable cooperative monitoring and assessment of the impacts of the unregulated squid and other driftnet fisheries are absolutely crucial given the scale of the fisheries and the warning provided by the limited data avaiable thus far.

A net bounty system, and net marking, registry, and identification system could potentially reduce the loss and discard of hundreds of miles of plastic driftnet that

now occur annually. S. 62 would provide for assessment of the feasibility of such programs.

International appraches

Wile passage of Senate Bill 62 is a crucial first step, it is also imperative that the United States pursue other international avenues to gain needed controls.

The INPFC may offer such an opportunity. However, of serve as an effective convention to gain needed international cooperation for the regulation of the North Pacific high seas fisheries, the INPFC must be revitalized. The United States should play a leading role to strengthen the INPFC so that it may serve as an effective management agency, and not merely as a platform for the exchange of scientific information.

The INPFC is hindered because it presently involves only three nations of the Pacific Rim: the U.S., Japan, and Canada. Effort should be made to expand INPFC to include more nations, particularly the Republic of Korea and Taiwan, so that the high seas squid, billfish, pomfret, and albacore fisheries could be addressed. A monitoring program and regulation of the squid fisheries could be developed and implemented through the INPFC.

The Government of Canada appears willing to join in the development of remedial efforts. Canada's Minister of Fisheries and Oceans, Tom Siddon, in the Vancouver Sun, said last month that: "Canada has got to spearhead an international effort among Pacific Rim countries. We've got to mount a very strong international protest about the use of these high seas driftnets. We can't just sit idly by and watch the continued, unregulated use of these nets."

An expanded INPFC—or a new North Pacific fisheries convention—is greatly needed to ensure the sustained productivity of the North Pacific. The U.S.S.R. should also be included, as that nation harvests large quantities of fish and engages in other activities affecting the total oceanic ecosystem. Involvement of the Soviets would allow cooperative management of the fisheries of the semi-enclosed Bering Sea.

Greenpeace views this issue from a global perspective. It is clear that pelagic driftnet fisheries could jeopardize living marine resources in any oceanic region in which they may be used. The United States should apply the understanding gained from the North Pacific crisis of our leadership role in ocean consevation of other regions. One step would be for our government to work for prohibitions of driftnets in oceans where they are not currently utilized.

An appropriate forum for that initiative is the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) where a ban on driftnets could be established before this dangerous technology could ever be utilized in the Southern Ocean. A similar position should be taken by our government whenever possible, including in the Food and Agriculture Organization of the United Nations (FAO). The United States now has direct experience with the adverse impacts of pelagic driftnets. Providing information about these problems to other nations, and working to cease escalation of this fisheries technology, will serve to protect the global marine environment.

CONCLUSION

The marine environmental hazards of the pelagic driftnet fisheries are well documented. Effective action must be taken at this critical juncture to gain protection for fisheries resources, marine mammals, and seabirds. Escalation of the utilization of pelagic driftnets should be halted, and this unsound fishing practice should be phased-out.

Greenpeace supports the passage of S. 62. We believe it is an excellent first step towards solving the problems.

Other nations have begun the process. Most recently, the Government of Australia took a step last May to prohibit the utilization of large-scale pelagic driftnets within its FCZ. During fisheries negotiations with a firm representing Taiwanese fishing interests, the Australia Department of Primary Industry cited fisheries conservation and marine mammal protection concerns and instituted a 2.5 kilometer (1.6 miles) driftnet length restriction. As a result of the restriction, the Taiwanese fishing industry decided to terminate its driftnet operations within the Australian FCZ. This action by the Government of Australia should serve as a positive example to the U.S.

The Executive Branch of our government has neglected to take steps to mitigate the hazards of pelagic driftnet fishing in our FCZ and in the international waters of the North Pacific through which stocks that originate in our waters migrate. Con-

gress should act to direct the Executive Branch to act appropriately to mitigate driftnets hazards.

Moreover, the role and effectiveness of the INPFC should be expanded so that the Convention could serve as a forum to monitor and manage the high seas squid driftnets fisheries, and other North Pacific fisheries.

During an era when a rising conservation ethic has stimulated actions that have sharply reduced the commercial direct kills of marine mammals, tens of thousands of porpoises, dolphins, and seals are still being killed incidentally by pelagic driftnets. We must take action through the implementation of S. 62 and other measures to achieve protection for marine mammals, seabirds, and marine turtles—and to protect the long term vitality of salmon and other fish species.

Thank you for this opportunity to present Greenpeace's views.

Senator ADAMS. Thank you, Mr. Reichman. We appreciate very much your excellent testimony.

I will defer at this point to the Senator from Alaska, Mr. Stevens.

Senator STEVENS. Thank you very much, Mr. Chairman.

I am delighted to have this panel. This panel represents some divergent interests that have not always been in complete harmony. So it is an interesting thing to see them here in support of this legislation.

Let me first ask you, Mr. Reichman. Greenpeace operates some vessels throughout the world. Is there any other way that we might bring about the collection of these ghost nets, the pelagic driftnets that have been cut loose or lost in storms and are out there in the North Pacific, other than a bounty system, that you know of?

Mr. REICHMAN. Senator, we really believe there has to be incentive. Commercial fishing is hard work, and oftentimes trawlers in the Bering Sea and the North Pacific do happen to catch these nets by accident. Such incidents are not very convenient to their operation.

They would like to haul them in, but it is expensive, time consuming and dangerous It is a very large oceanic area, the Bering Sea and North Pacific, and we are going to have to provide some incentives or those nets are just going to stay out there and continue to be destructive to our resources.

Senator STEVENS. Thank you very much.

Mr. Phelan, I know that you represent people that come from both of our states, Senator Adams and mine. And I want to congratulate your organization in taking such a strong position, not only this time but at the last hearings, in terms of this legislation.

It seems to me that for too many years we ignored the effect of these nets on things like our fur seals, but even more so, the effect of these nets, particularly the ghost nets, on the fishing operations on salmon and halibut and the other species of the North Pacific.

I am delighted that you are supportive once again.

Mr. PHELAN. Thank you.

Senator STEVENS. Mr. Mitchell, your people I think, our Alaskans from the Northwest area, suffer most because of the current status of the taking, not only by the ghost nets, but by the use of the nets themselves. Your testimony is directed at the total use of these nets per se, is it not?

Mr. MITCHELL. Yes, it is, Senator. We have basically felt that we made a good case over the years for the elimination. And it has been the policy of our government for the last 25 years that the

high seas gillnet salmon fisheries were a destructive fishing operation, and it was the intent of our government to eliminate them.

We feel very strongly they have not moved very quickly to do that. There are serious social and economic considerations, not only to our smaller commercial subsistence fisheries in western Alaska. But you take Cook Inlet, for instance, where you have a conflict between sport, commercial and subsistence.

We had the whole board of fisheries completely dissolve over 2,000 king salmon this year, fighting over 2,000 king salmon. That sport and recreational fishery there is a very important economic consideration.

At the same time, the Japanese high seas fishery is estimated to take in some years as high as 180,000 king salmon bound for the Cook Inlet drainages, the Sesetna River and the Kenai.

So meanwhile people are fighting over 500 to 2,000 king salmon, and out on the high seas those salmon which will be returning in two or three years as 40 to 50 pound king salmon, you know, are basically being devastated.

Senator STEVENS. And the Magnuson Act was designed to claim jurisdiction over those anadromous species, no matter where they were.

Mr. MITCHELL. We have jurisdiction, but my understanding is the State Department feels that they and the Coast Guard lack the ability to follow our salmon onto the high seas, even though that jurisdiction is asserted.

Senator STEVENS. I am hopeful we will be able to move on this.

Mr. McManus, I thank you also. I think your center is doing a great deal of work and very substantial and positive work in helping us protect the oceans. And we, with the longest coastline in the United States, have a great interest in what you are doing. So I thank you for your assistance, too.

Mr. Chairman, I thank you for taking the time to chair this portion of the hearing. It is a very important thing to, I think, both of our states.

Senator ADAMS. Thank you very much, Senator.

Mr. Mitchell, you have discussed, and I agree with you, the inefficiency of the driftnet fishery. Is there in your opinion another, more efficient gear available to the squid fishery?

And if you have one, would you describe it, so that we have alternatives we can discuss with our negotiators?

Senator STEVENS. Would you excuse me. I have another conflict. As a matter of fact, I am about a half hour behind on my conflict right now.

Mr. MITCHELL. Senator Stevens, I might want to answer the question—it was stated by a State Department representative that the council was being given the information on the straddling stocks harvest and the donut. That is not true.

The Japanese in particular are delaying information on those harvests for up to two years. We do not even have the data for 1985 at this time, and yet we know that there are approximately 119 vessels of Poland, Japan, and Korea that are fishing in the donut now as they are being excluded. So we are looking at harvests in the range of probably 400,000 metric tons of pollock.

Senator STEVENS. Well, they understand the Pelly Amendment. I still think we are going to have to consider strengthening the Pelly amendment to cover the availability of information, which could lead to an embargo if they fail to give it.

I really want to pursue that. I would be happy to discuss that with you.

Thank you again, Mr. Chairman.

Senator ADAMS. Mr. Mitchell, do you have another kind of gear that you want to describe?

Mr. MITCHELL. Basically, as far as Japanese, they fish both gillnets and they also have what is known as a jig fishery. And I am not aware that they have a trawler for squid.

But my understanding is that if the Japanese squid fishery, which is comprised of probably 530 vessels, some of which are the same land-based and mother ship salmon vessels which fish in that squid fishery also, if they would stay south of certain degrees of latitude during certain portions of the year they pretty much would have a very minimal salmon harvest.

The problem is that at any given time approximately 20 percent of the Japanese squid fleet violate their own internal regulations which have set up these boundaries that are based on a monthly basis, but based generally on water temperature.

So in order to get a handle on that, we would have to have suitable monitoring. And that is why the use of those Defense Department satellite capabilities would give the Coast Guard the opportunity to do more effective patrolling, and also to give that information back to the Japanese fisheries agencies so that they internally could take some steps to discipline their own fleets.

If they stay within those set boundaries, there would be very minimal take of our salmon.

Senator ADAMS. Mr. Phelan, you and I have dealt with TALFF for many years. Do you think the decrease in TALFF affects our nation's ability to deal with other nations on issues like driftnets?

Mr. PHELAN. It certainly does. We are rapidly getting to the point where, as TALFF disappears, we are left with a situation of trying to be morally persuasive in making arguments about the environmental impacts on the fisheries. Without TALFF, such arguments are our only way of persuading people to try to eliminate the use of items such as driftnets.

And that does not give us a whole lot of leverage, given the economic incentive there is on the other side for the continued use of that type of fishery.

Senator ADAMS. Mr. Reichman, how effective do you think the migratory bird treaty has been in conserving the marine bird population?

Mr. REICHMAN. Well, in the case of the situation with the impact from the driftnet fisheries, the MBTA is having no impact whatsoever, because it is not even being considered. For example, when Ambassador Wolfe went to negotiate the treaty to amend the International North Pacific Fisheries Commission, the Migratory Bird Treaty Act was not even a consideration.

None of the marine mammal considerations were, either. So right now, the MBTA is null and void when, quite frankly, under the MBTA, right out to our 200 mile limit it is Greenpeace's posi-

tion it should be in force. We know that if the driftnet fishery continues to operate near breeding colonies we are going to have the mortality of hundreds of thousands of sea birds, and the MBTA should be stopping that destruction.

Senator ADAMS. Mr. McManus, I have the same question for you. What do you think about the effectiveness, and any comments or suggestions you would like to make like Mr. Reichman did?

Mr. MCMANUS. Well, sir, we believe, of course, too, that the Migratory Bird Treaty Act is applicable in this situation. The Federal Government, through recent activities in western California, has acknowledged that the Migratory Bird Treaty Act does apply to takings of birds by gillnets.

And I might add that at one point, at the request of a member of Congress, we sat down with representatives of the Japanese government to discuss the application of the Migratory Bird Treaty Act and explained our views on its application.

And at the urging of the member's staff, they requested that we continue discussions to see if there might be some kind of resolution or understanding that might emanate from that to solve problems such as we are discussing today. We requested, as a conclusion to that meeting, to have the Japanese government tell us, to start a basis for negotiations, what their interpretation of what their responsibilities were under the Migratory Bird Treaty they have with the United States.

And they received, the representatives here in Washington received, word from the government of Japan that they were not to give any written explanation of what their responsibilities were.

In oral discussions what they said was that it was only applicable to citizens within their own three mile limit, which we do not agree with at all. So I think the problems that have been raised with regard to the MBTA are very, very serious and will either have to be addressed through reasonable and practical legislation such as S. 62, or other means will have to be taken to try and resolve whether indeed the Act will be complied with.

Senator ADAMS. Thank you, Mr. McManus.

I want to thank each of the members of the panel for being here today and for your statements. It has been an excellent panel. The committee appreciates it very much.

The committee will stand in recess subject to the call of the chair.

[Whereupon, at 12:45 p.m., the committee was adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

STATEMENT OF HON. GEORGE MITCHELL, U.S. SENATOR FROM MAINE

As a member of the National Ocean Policy Study, I am pleased to participate in this joint oversight hearing with the Commerce Committee on fisheries management—and on S. 62, the Driftnet Bill.

The fishing industry is one of the State of Maine's most important heritages. In recent years, Maine fishermen have fought hard to adjust to the loss of access to Georges Bank fish stocks in the Gulf of Maine, as a result of the 1984 US-Canadian Boundary Decisions.

Major differences exists between the American and Canadian fishing industries, Canada provided extensive government subsidies to its industry. It also utilizes a fisheries management system different from our own.

These differences underlie almost every issue confronted by New England fishermen. They are primary reasons why as a member of the Senate Finance Committee, for exmple, I have supported efforts to exclude fish products from the US-Canadian Free Trade negotiations.

More than anything else, New England fishermen need the Federal Government to allow them the opportunity to address industry challenges on their own—and to support them in their efforts, rather than impede or oppose them.

Often, that simply means giving fishermen the time to work out problems—slowly, but surely, and systematically.

Since 1984, New England fishermen have proceeded in that manner.

In 1985 and 1986, the North Atlantic Fisheries Task Force brought a successful countervailing duty petition before the International Trade Commission, which resulted in a 5.82 per cent ad volerm duty on whole groundfish imports from Canada. For the first time, New England's claims of unfair competition from subsidized Canadian imports were recognized under the law.

In 1985 also, for the first time in almost 20 years, Maine fishermen ventured out 800 miles to international waters on the "Tail" of Georges Bank. Catches there have helped to bolster the competitive position of the American industry.

In 1986, the Portland Fish Exchange opened in Maine. As New England's first display auction, it marked ar innovative step forward in market development.

At the same time, tensions with Canada heightened. Canadian fisheries enforcement vessels engaged in "hot pursuit" of American vessels suspected of fishing "over the line." For the first time, Canada armed their patrol vessels.

As a means of discouraging American fishing activity in the Tail of the Bank, American vessels fishing activity in the Tail of the Bank, American vessels have been denied non-emergency port services in Canada.

The issues now before the Commerce Committee must be viewed with that background in mind. Each issue affects another. They must be resolved carefully.

The most immediate challenge for New England fishermen lies in fashioning a groundfish fisheries management plan—for cod, haddock and other species within the American 200-mile limit.

For the past year, the New England Fisheries Management Council and the National Marine Fisheries Service (NMFS) have been on the edge of an impasse on arriving at a groundfish management plan. It is strong concern that this problem be resolved.

The resolution must reflect the democratic character and commitment to free enterprise of the New England industry. The integrity of the regional council system also must be preserved.

Once a groundfish management plan is adopted, efforts to address basic management concerns between the United States and Canada can be renewed. For over a year, Professor James Wilson of the University of Maine has proposed to hold a joint technical conference to discuss the scientific and economic principles underlying the different US and Canadian fisheries management systems.

Such a conference would be an important step forward to resolving fundamental differences between the United States and Canada. Unfortunately, Canada thus far has been unresponsive to the proposal.

Whether it be free trade or fisheries management, the Federal Government must not compel any action on such issues which end up serving Canada's interests rather than our own.

The same is true for the situation involving American fishing activity on the Tail of the Bank.

The Tail of the Bank lies outside Canada's 200-mile limit, but in international waters subject to the Northwest Atlantic Fisheries Organization (NAFO) Treaty.

The United States is not a member of NAFO. In 1983, the Senate ratified the NAFO Treaty, but it is my understanding that implementing legislation would be required to complete our entry into NAFO.

In June 1986, as tensions between American and Canadian fishermen in the Gulf of Maine increased, Canada's Minister of Fisheries and Oceans declared that Canada needed to find ways "in areas where we have no jurisdiction, to influence the fishing behavior of other nations on the other side of the line, particularly on the Nose and Tail of the Grand Bank."

In August 1986, an Information Paper issued by the provincial Government of Newfoundland and Labrador declared that "extended functional jurisdiction" was the "preferred solution" for these areas.

The Tail of the Bank issue has motivated the concerns of New England fishermen over S. 62, the Driftnet Bill, and its potential implications as a precedent for "extended functional jurisdiction."

I am sympathetic to the environmental goals of the proposed legislation, but recognize the importance of the New England industry's concerns.

To the extent that the issue of the Tail of the Bank can be resolved, jurisdictional concerns over S. 62 will be resolved. New England fishermen also remain willing to explore other ways to remove such concerns surrounding the proposal.

US membership in NAFO could resolve the Tail of the Bank issue. However, New England fishermen will not accept entry into NAFO without getting something in return. The United States would need to have advance guarantees from NAFO members that American fishermen will receive quotas set at greater levels than their present catches. Canada also should allow American fishermen access to surplus stocks within their 200-mile limit, which presently is afforded other NAFO members.

Last year, Canada announced a major shift in its allocation policy. Access to Canadian stocks is based not on Canadian access to foreign markets, but on cooperation with Canadian fisheries management both inside and outside their 200-mile limit.

Last month, at the Boston Seafood Show, Canada's Minister of Fisheries and Oceans sounded the twin themes of "free trade" and "proper management."

However, the Tail of the Bank cannot be used as a wedge in an assault of American fisheries management principles. And free trade cannot occur if the fundamental differences between the American and Canadian fishing industries are ignored.

The Federal Government must not undermine American interests in this regard. In resolving all these issues, the traditional character of the New England industry must be preserved.

PORTLAND FISH EXCHANGE, INC.,
Portland, ME.

Hon. ERNEST F. HOLLINGS,
Chairman, Committee on Commerce, Science and Transportation,
U.S. Senate, Washington, DC. 20510-6125

HONORABLE CHAIRMAN, MEMBERS OF COMMITTEE: The New England ground fish industry is at the threshold of great opportunity. The consumer's demand for healthy food has focused on fish and seafood and has stimulated in the industry a need for an increased supply of high quality fish products. The corner stone of this great opportunity is sound resource management.

Because of the rapidity of the increase in demand, heretofore underutilized species are the object of immediate attention and have shown the most dramatic increase in price and consequently landings. Many stocks of these species are in extremely good shape and offer returns that have rarely been seen on the east coast. Resource management therefore must have several objectives in order to be truly effective and provide the optimum use for the industry and the nation. While management must strive to improve the condition of depleted stocks, it is paramount

that opportunities to diversity and target more abundant species be maintained. The ability to change fisheries and fishing areas allows for new opportunities and profits while diverting effort from more traditional species and fishing grounds.

The New England ground fish plan is an example of the delicate balance that must be achieved to promote long term resource improvement while accounting for the short term economic and social impact that results from regulation. An underlying principle of the plan is to maintain flexibility and encourage diversity. The beneficial results of this policy can already be seen in the rapid growth of the squid, whiting, pollock and mackerel fisheries that are in the early stages of development and are now an important factor in relieving pressure from traditional stocks and contributing greatly to the overall economic value of the fishery to the nation. Other management regimes may appear to be more direct or easier to inforce but have severe economic consequences and result in lack of support, economic stagnation, and loss of opportunities.

The fishing industry has always been a dynamic industry. The people in the industry have always been resourceful, hard working and ingenious at finding new ways to "make a dollar". Management can work with those characteristics and achieve long term growth with the support of the industry or work in opposition to those characteristics and get involved in a no win war with those formidable traits being used to "beat the system" at every chance.

At these times of disruption and change, frustration by both managers and the industry tempt one to believe that stability and force are the only ways to prevent collapse (both of the resource and the economics). We can already see the industry changing and adapting to new opportunities. We must as managers enhance the opportunities on every level. We must support the Management Councils as a system and support the kind of plans, like the ground fish plan, that are responsive to the fundamental conditions of the fishery. We must seek compatible positions internationally. In our trading policies, we must provide for maximum mobility and preserve as many options as possible. We must try to keep open foreign markets and where appropriate access to fishing areas outside our zone.

The fishing on the east coast is gradually becoming a truly international fishery. We have always had foreign fishing operating on our zone and have always been attractive for imports. We are now however, seeking to export products into the world market and are seeking fishing opportunities in other countries as well.

Maine has a small but growing fleet of groundfish vessels fishing on the Grand Banks outside the Canadian zone and has several swordfish vessels fishing as far east as the Azores. Enhancing the opportunities for these vessels not only benefits them but all other industry sectors at home and takes pressure off the "traditional" fishing as well.

Our fishing on the Grand Banks is threatened by Canadian claims that the fish and "transboundary stocks" and are of vital concern to the Canadian domestic fishery. They are under great pressure to stop this fishing because it is perceived as direct competition using "their" fish and competing in "their" market (the U.S.). The only way they can stop it is by extending jurisidiction over the "tail of the Bank". There is considerable pressure on the Federal Government to do so. The United States is opposed to this unilateral move to extend jurisidiction. However, bills like S62 which propose similar actions are not appropriate for the east coast at the current time. There are ways to accomplish an improved position for the east coast, west coast and Canada as well, but in its current form, and at this time, S62 is not in the best interests of the United States.

I would be pleased to work with the committee and staff to clarify my views and work toward resolution of problems associated with S62, from the east coast perspective. Resolution of these issues will provide a unified position from which we, as managers, can enhance fishing opportunities and make management of the resource more effective in providing the greatest benefit to the nation.

Thank you for receiving this testimony.

Sincerely,

JAMES W. SALISBURY,
General Manager

John R. McKernan, Jr.
Governor

1987 MAY -4 PM 12:09

William J. Brennan
Commissioner

DEPARTMENT OF MARINE RESOURCES

Telephone (207) 289-2291

April 29, 1987

Senator Ernest F. Hollings
Chairman, Committee on Commerce,
Science and Transportation
Dirksen SOB, Room 508
Washington, DC 20510

Dear Mr. Chairman:

I am writing to express my views on fisheries management and the regional fishery management council system relative to the Committee's April 30 hearing. I would also like to comment on the potential for US participation in the North Atlantic Fisheries Organization in the event that that issue is discussed by the Committee.

As you know, fisheries management is an inexact science which often has a more dramatic and immediate impact upon fishermen than it does upon stocks of fish. Recognizing the potential social and economic ramifications of fishery management decisions, the Congress established the regional council system as a way of providing a forum and mechanism to achieve an amalgamation of regional views, values and interests. Achieving effective management decisions depends as much upon public and industry input as it does upon stock assessment data.

This has particular relevance in the context of the New England multi-species groundfish fishery which is beset with a number of competitive biological, economic and social factors. Developing a management approach for such a fishery is understandably difficult, but it should, nonetheless, be done by the council which is better able to evaluate all competitive factors. It is, therefore, important that the Secretary of Commerce not preempt the council by substituting a different plan for management of this very complex fishery, and I urge the Committee to stress this point to the Secretary's representatives.

Recognizing the Secretary's desire to ensure that fisheries management plans be effective, it is appropriate to point out that without adequate enforcement, there is very little likelihood of achieving any management goals. It is therefore recommended that the Committee urge the Secretary to reallocate resources in an effort to strengthen fisheries enforcement with particular emphasis on offshore activity in that existing dockside enforcement alone is insufficient.

Regarding the North Atlantic Fisheries Organization (NAFO), I would suggest that the fishing industry in this country is very dynamic and responsive to changing conditions. As a result of the World Court decision with respect to the US/Canada boundary dispute in the Gulf of Maine/Georges Bank region, several New England fishermen have had to adapt to the loss of valuable fishing grounds by moving to NAFO waters in the Grand Banks area — continued access to this area is extremely important.

Although US participation in NAFO is not necessarily unacceptable, I believe that it is essential for an agreement to be reached with Canada and other NAFO members in advance of US participation in this organization. Such an agreement should provide that the US receive reasonable quotas for the NAFO zone as well as a share of any surplus Canadian stock inside their 200-mile zone. In this regard, however, it is important to consider that Canada is poised to exert extended functional jurisdiction beyond 200-miles. Therefore, the US should not take any action with regard to fisheries which might encourage such action by Canada. It is for this reason that New England fishermen have substantial concerns about the implications of S. 62.

Thank you for your consideration of the foregoing comments.

Sincerely,

WILLIAM J. BRENNAN
Commissioner

STEVE COWPER, GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

May 6, 1987

The Honorable Ernest Hollings
Chairman
Senate Committee on Commerce,
Science, and Transportation
508 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing to present the views of the State of Alaska on S.62, which is intended to reduce the impacts of driftnets on the living marine resources of the North Pacific Ocean. The State's principal interest in the legislation pertains to those provisions which address the problem of the interception of Alaska salmon by driftnets.

As this committee heard in its oversight hearings last year, the interception of Alaskan salmon on the high seas by pelagic drift nets has serious effects on the economic and social well being of Alaskans. The interceptions by the high seas salmon fisheries of Japan have the greatest known impact on the state, but undocumented harvests by the largely unmonitored squid driftnet fleets may have a substantial effect as well.

Interception by the Japanese fleets cost the citizens of Alaska approximately 20 million dollars per year in lost harvest opportunity. This massive economic loss is made even more severe by the fact that it disproportionately falls on villagers from the Arctic-Yukon-Kuskokwim region of the state, which is one of he most economically depressed areas in the United States. The average annual per capita income in the Arctic-Yukon-Kuskokwim region is only about $2,700, mostly derived from commercial fishing. Additionally, because of their low cash income and the extremely high costs of goods and services, citizens of this area are dependent on these salmon resources for subsistence use.

The conservation and economic problems created by driftnet interception are especially severe with regard to chinook salmon. Estimates of interception of western Alaska chinook salmon average about 100,000 fish per year for recent years. Taking into account fish which fall from the nets and die, the final result is probably an average loss of 160,000 western Alaska chinook salmon per year. These losses have aggravated conservation problems with salmon runs bound for the Yukon and Kuskokwim Rivers. In the case of the Kuskokwim, this problem is so severe that it will preclude a directed commercial fishery and may require some restrictions in the subsistence fishery. Total losses to the Kuskokwim fishery from these limitations may be as much as $1 million in a fishery that only averages about $3 million in ex-vessel value per year.

A number of international and bilateral agreements attempt to control the activities of these fisheries. All too often proper regulation is frustrated by a lack of knowledge about the activities of these fleets and what they are actually catching. We are attempting to address these problems through forums such as the International North Pacific Fisheries Commission, and while progress is being made in some areas, in others the results have not been gratifying.

In the Japanese salmon fisheries outside our EEZ, we are concerned with a lack of onboard observers to monitor catch composition and possible discard or underreporting of species of concern such as chinook salmon. In the Japanese landbased salmon fishery, we need to better verify vessel location. In the squid fisheries of Japan, Korea, and Taiwan, we need much better data on vessel and harvest location, by-catch levels and the presence of Alaskan salmon in these catches.

We support the observer and driftnet monitoring concepts embodied in S.62 and the requirements to study solutions to the marine debris problem. In our view, effective management measures must be tailored to each specific fishery. State scientists are available to work on the provisions regarding research and monitoring so that they are most responsive to the needs of specific areas and fleets. The state encourages favorable action on the bill.

Thank you for your consideration of this correspondence.

Sincerely,

John W. Katz for
Steve Cowper
Governor

74-719 24/50 NP